

# CHILDHOOD OBESITY: THE DECLINING HEALTH OF AMERICA'S NEXT GENERATION—PART I

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## HEARING

BEFORE THE

SUBCOMMITTEE ON CHILDREN AND FAMILIES

OF THE

COMMITTEE ON HEALTH, EDUCATION,  
LABOR, AND PENSIONS

UNITED STATES SENATE

ONE HUNDRED TENTH CONGRESS

SECOND SESSION

ON

EXAMINING CHILDHOOD OBESITY, FOCUSING ON THE DECLINING  
HEALTH OF AMERICA'S NEXT GENERATION (PART I)

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JULY 16, 2008

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# **CHILDHOOD OBESITY: THE DECLINING HEALTH OF AMERICA'S NEXT GENERATION—PART I**

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**WEDNESDAY, JULY 16, 2008**

U.S. SENATE,  
SUBCOMMITTEE ON CHILDREN AND FAMILIES, COMMITTEE ON  
HEALTH, EDUCATION, LABOR, AND PENSIONS,  
*Washington, DC.*

The subcommittee met, pursuant to notice, at 2:31 p.m. in Room SD-430, Dirksen Senate Office Building, Hon. Christopher Dodd, chairman of the subcommittee, presiding.

Present: Senators Dodd, Bingaman, and Murkowski.

Also Present: Senator Harkin.

## **OPENING STATEMENT OF SENATOR DODD**

Senator DODD. The committee will come to order.

Well, first of all, let me thank our witnesses, and also I want to welcome the rather large audience here in this committee room. I am particularly pleased to see so many young people here. We have opened up the back room as well. For those of you standing here, as seats become available, the staff will try and make it more available.

Had I known we were going to have this much interest in the subject matter, I would have tried to secure a larger room. I apologize to all of those of you who are standing and showed up for today's hearing, but I am very grateful to all of you.

My colleague from Tennessee, Senator Lamar Alexander, I know is going to try and make it over here with us for this hearing, and I suspect we will be seeing Senator Harkin as well, who has a deep interest in the subject matter that is the theme of our hearing this afternoon.

The subject, "Childhood Obesity: The Declining Health of America's Next Generation—Part I." My intention is to have a series of hearings, at least two immediately and possibly more, on this subject matter as we examine the health condition of the next generation.

As many have concluded, as I will share in my opening comments, this generation of the younger generation in this country may be the first generation of Americans in the history of our country that is less healthy than their parents. That is a statistic and a conclusion that is deeply troubling to all of us.

I welcome you here today for what is the first, as I mentioned, of two important hearings on one of the most urgent threats to

American children, the childhood obesity epidemic. The numbers are, quite frankly, stunning—absolutely stunning. No other word could be used other than that to describe it.

Nearly one out of every three of America's children are obese or are at the risk of becoming obese—25 million children in all, with children in minority families at an even greater risk in our country. It is the most common disease of childhood, and we are told it is largely preventable.

Nationally, the childhood obesity rate tripled between 1980 and 2004. In many States, especially those in the South and the Midwest, the rates are even much worse. Even in States where childhood obesity rates are among the lowest in the Nation, like Colorado and my home State of Connecticut, the rates are appallingly high—even in relatively good States.

As a parent, these findings are deeply troubling to me—as they should be, of course, to every parent, every person in this country—because this is about so much more than numbers and statistics. Most public health experts believe, and the *New England Journal of Medicine* recently warned, that unless we act as a nation, our children's generation may be the first in the modern era to live shorter, less healthy lives than those of their parents. That is a possibility we should all be ashamed of as Americans.

Already the health consequences are crystal clear. Right now, children are increasingly being diagnosed with type 2, "adult-onset" diabetes, high blood pressure, and high cholesterol levels. The list goes on: stroke, certain types of cancers, osteoarthritis—is that how you pronounce it?—certain liver diseases. You don't have to be a health expert to know that these are not diseases we normally associate with children.

We all can point to reasons why this is happening. Junk food is rampant and marketed to children. Television has paved the way for children to have more sedentary lifestyles. We surround our public schools with soft drink machines and fast food restaurants, which local schools allow because they are often so underfunded they turn to corporate sponsors for financial assistance.

It doesn't help that only 8 percent, only 8 percent of our elementary schools in this country even require daily physical activity, and only 6 percent of middle and high schools do as well. At the same time, our investment in public parks, bike paths, playgrounds, and other kinds of infrastructure that encourage physical activity has deteriorated.

According to the 2004 National Survey of Children's Health, between 25 to 40 percent of children over the age of 9 get less than 1 hour of physical activity a week, depending upon the State they live in. A new report released by the National Institute of Child Health and Human Development and published in the *Journal of the American Medical Association* shows that the vast majority of 15-year-olds do not come close to getting the recommended 60 minutes of physical activity a day.

Childhood obesity is a problem that affects all of us, whether we have children or not. One day every one of these children are going to grow into adulthood, and odds are that every one of the health problems that started when they were children are only going to get worse. We are all going to be paying the bill.

If you are not impressed by the human dimension of this, then consider the financial costs. The obese spend 36 percent more on health care. They spend 77 percent more on medications. That means the costs for all of us are going to keep heading upwards.

They already are. Health care spending has exploded, as many know, in the last 20 years, and 1 out of every 4 of those added dollars has gone to treat obesity-related problems. That is unsustainable as a nation. The question, of course, is what are we going to do about it as a nation?

These hearings, these two hearings we will be holding are our first step in this subcommittee. Today, we will make sure we understand what is happening and why. Next week, I will hold a second hearing in which we will focus on what needs to be done to stem the current tide and who could and should be doing it, from the individual to the private sector, from State and local governments obviously to the national government as well.

All of us—parents, schools, government, employers—need to see the rising childhood obesity rates for what they are. This is a medical emergency, and it is time that we worked together to do something about it.

I am delighted that we are joined or will be joined by my colleague from Iowa, Senator Harkin, who I mentioned a moment ago, has devoted a great deal of his time to this issue. As the Chairman of the Agriculture Committee of the U.S. Senate and who sits on the Appropriations Committee, he has been working diligently over the last number of years to try and develop better nutrition programs, support more organic farming, and other issues which could help considerably to deal with some of the issues that are associated with obesity.

I want to thank him and I want to thank again Senator Alexander, who is also very interested in the subject matter, for their support of this effort.

With that, I want to turn to our witnesses and again thank them for being with us today. Let me introduce them for all of you.

Jeff, is it “Lee vee”—do you pronounce it “Lee vee?”—Jeff Levi. Dr. Levi is the executive director of Trust for America’s Health. He is also an associate professor at George Washington University’s Department of Public Health, and he previously served as the deputy director of the White House Office of National AIDS Policy. He has a Master’s from Cornell University and a Ph.D. from George Washington University.

Trust for America’s Health, or TFAH, advocates for a modernized public health system and addresses many of the critical problems threatening the health of our Nation. Each year, TFAH issues a remarkable report on obesity. It is called “F as in Fat.” We look forward to sharing the findings of this report, and of course, thank you, Doctor, for being with us.

Francine Kaufman, Dr. Kaufman, is a pediatric endocrinologist. Dr. Kaufman is a distinguished professor of pediatrics and communications at the Keck—is it Keck?—Keck School of Medicine and the Annenberg School of Communications at the University of Southern California. She also serves as the director of the Comprehensive Childhood Diabetes Center and is head of the Center

for Endocrinology, Diabetes, Metabolism at Children's Hospital in Los Angeles.

Dr. Kaufman served as national president of the American Diabetes Association from 2002 and 2003 and remains a very active volunteer in that effort. She is a foremost expert on the nexus of obesity and diabetes and is leading some of the world's largest studies on diabetes. She was elected to the Institute of Medicine in 2005 and has received numerous prestigious awards for her research and leadership. We thank you, Doctor, as well.

Next we have Margaret Grey. She is from Connecticut, a constituent of mine. I am delighted she is with us. Dr. Grey is Dean at the Yale Nursing School, the Annie Goodrich Professor, and a pediatric nurse practitioner. She holds a master's of science in pediatric nursing from Yale University and a doctorate in public health and social psychology from Columbia University.

Dr. Grey's work and leadership has been recognized by countless esteemed awards and honors. She was also elected to the Institute of Medicine in 2005. Her research focuses on behavioral aspects of children with diabetes and behavioral interventions that can help prevent and control diabetes in youth. We look forward to hearing from you as well, and thank you very much.

Bruce Lesley is someone who needs little introduction to folks around here, and we thank you once again for being before us. He has spent 12 years on Capitol Hill working on the Senate Finance Committee and the HELP Committee, the very committee we are in today, as well as with numerous members, including our colleague Jeff Bingaman, who I hope will be able to get by a little later in this hearing.

Long an advocate of the needs of children, he is currently the president of First Focus, a group that works to ensure that children and families remain on the agenda of the Federal Government. Bruce lives in Maryland with his wife and children. We welcome you back to the committee. Good to have you with us.

Let me ask each of you, if you would, to make your opening statements. I want you all to know that whatever other supporting documentation you think would be helpful, as we start to build this record in the committee, will be made a part of the record.

If you can—I am not going to wave a gavel around at you here, but if you could try and keep your remarks to 5 or 7 minutes or so, so we can get through the opening statements and then have a good conversation.

Since we are not overloaded with members here today, I want to encourage sort of the informality of talking back and forth without rudely interrupting each other. If you have additional thoughts, if I ask one question, don't be quiet about this. This is an opportunity for us to lay out a good record that I hope will be the beginning of some very positive developments on this issue as well.

#### PREPARED STATEMENT OF SENATOR DODD

First, I want to welcome my colleagues and our distinguished witnesses, and thank them for being here today. Today we are holding the first of two important hearings on one of the most urgent threats to American children—the childhood obesity epidemic.



The numbers are stunning. Nearly 1 out of every 3 of America's children are obese or are at risk of becoming obese—25 million children in all, with children in minority families at an even greater risk. It is the most common disease of childhood and we're told it's largely preventable. Nationally, the childhood obesity rate tripled between 1980 and 2004. And in many States, especially those in the South and the Midwest, the rates are much worse. Even in States where childhood obesity rates are among the lowest in the Nation, like Colorado or my home State of Connecticut, the rates are appallingly high.

As a parent, these findings deeply worry me—as they should every parent in America—because this is about so much more than numbers and statistics. Most public health experts believe, and the *New England Journal of Medicine* recently warned, that unless we act, our children's generation may be the first in the modern era to live shorter, less healthy lives than their parents. That is a possibility we should all be ashamed of.

Already the health consequences are crystal clear. Right now, children are increasingly being diagnosed with type 2, “adult-onset” diabetes, high blood pressure and high cholesterol. The list goes on—stroke, certain types of cancers, osteoarthritis, certain liver diseases. You don't have to be a health expert to know that these are not diseases we normally associate with children.

We all can point to reasons why this is happening. Junk food is rampant and marketed to kids. Television has paved the way for kids to have a more sedentary lifestyle. We surround our public schools with soft drink machines and fast food restaurants—which local schools allow because they are often so underfunded they turn to corporate sponsors for financial assistance.

It doesn't help that only 8 percent of elementary schools even require daily physical activity—only 6 percent of middle and high schools. At the same time, our investment in public parks—in bike paths, playgrounds and other kinds of infrastructure that encourage physical activity—has deteriorated. According to the 2004 National Survey of Children's Health, between 25 to 40 percent of children over the age of 9 get less than one hour of physical activity a week, depending on the State. And a new report released by the National Institute of Child Health and Human Development (NICHD) and published in the *Journal of the American Medical Association* today shows that the vast majority of 15 year olds do not come close to getting the recommended 60 minutes of physical activity a day.

Childhood obesity is a problem that affects all of us—whether we have kids or not. One day every one of these kids is going to grow into an adult—and odds are that every one of the health problems that started when they were kids is going to get worse.

And we're all going to be paying the bill. The obese spend 36 percent more on health care—they spend 77 percent more on medications. That means the costs for all of us are going to keep heading up. They already are. Health care spending has exploded in the last 20 years—and 1 out of every 4 of those added dollars has gone to treat obesity-related problems. That is unsustainable. The question is: what are we going to do about it?

These hearings are our first step. Today we'll make sure we understand what is happening and why. Next week we will focus on what needs to be done to stem the current tide and who could and should be doing it, from the individual to the private sector, from State and local government to the Federal Government. All of us—parents, schools, government, employers—need to see the rising childhood obesity rates for what they are: a medical emergency. It is time we worked together to do something about it.

I am delighted that we are joined by Senator Harkin. He has been tireless in his efforts to bring this issue to Congress' attention and find innovative solutions to this epidemic. I want to thank my partner in this venture, the Ranking Member of the Subcommittee, Senator Alexander, who also has a very real concern about these issues.

Senator DODD. With that, Dr. Levi, we thank you very much for joining us, and the floor is yours.

**STATEMENT OF JEFFREY LEVI, PH.D., EXECUTIVE DIRECTOR  
OF TRUST FOR AMERICA'S HEALTH, WASHINGTON, DC**

Mr. LEVI. Thank you, Mr. Chairman, and thank you very much for this opportunity to testify on this very serious issue of the declining health of America's children, which is closely linked to our Nation's obesity epidemic.

As you noted, approximately 25 million children are obese or overweight, and rates of obesity have more than tripled since 1980. While a recent analysis from the National Health and Nutrition Examination Survey, known as NHANES, suggests that the number of U.S. children who are overweight or obese may have peaked after years of steady increases, scientists and public health officials are unsure if the data reflect real change or a statistical anomaly.

Even if childhood obesity rates have peaked, the number of children with unhealthy BMIs remains unacceptably high, and the public health toll of childhood obesity will continue to grow as the problems related to overweight and obesity in children show up later in life. This will also threaten our economic competitiveness as a nation as our healthcare costs continue to rise, in part, due to obesity and overweight.

How did this problem arise? In the simplest terms, one could argue this is just a matter of physics. Children today are eating more and moving less, which inevitably leads to increases in weight. That is true, but it is only a part of the story.

We have also created a physical environment that re-inforces a less-active lifestyle, and we have not compensated for this in the level of physical activity we promote in the schools. Thirty years ago, nearly half of American children walked or biked to school. Today, less than one in five do so.

Children are also not getting enough activity in schools. According to CDC data, only 3.8 percent of elementary schools, 7.9 percent of middle schools, and 2.1 percent of high schools provided daily physical education or its equivalent.

We have also placed kids in a less nutritious environment. It is not just too much food, but too much bad food that kids are eating. We have not harnessed the opportunities of the school to com-

compensate for the overall propensity among Americans to consume too much sugar and too few fruits and vegetables.

What occurs in schools can be critical, given the number of children who depend on school breakfast and lunch for their meals and the patterns that school food access can create for all children. Current food and meal nutrition guidelines lack standards for sodium, trans fat and whole grains, and the fruit and vegetable content is too low. Yet new guidance from the USDA is not expected until 2010, despite a 2004 congressional requirement to issue new guidelines.

We have placed a particular burden on our poor and minority children, who are disproportionately overweight and obese. Primarily because our poverty programs have not kept up with the rising cost of nutritious food, access to healthy food is often limited in poor neighborhoods, and physical activity may be limited because of safety concerns or inadequate recreational facilities.

For example, African-American children are almost twice as likely to be obese. Similarly, the National Survey on Children's Health shows that rates of overweight decline as income rises. In 2003, 22.4 percent of kids below 100 percent of poverty were overweight, while only 9.1 percent of kids at 400 percent or more of poverty were overweight.

I think this outline of the problem shows that it will take more than telling kids to eat less and move more. We need a national commitment to change the physical and social environment in which children live, and all Americans will benefit from living in healthier communities. We must make healthy choices easy choices for all Americans, regardless of where they live or what school they attend. We need a cultural shift, one in which healthy environments, physical activity, and healthy eating become the norm.

Tomorrow, Trust for America's Health will release a new report that examines how much the country could save by strategically investing in community disease prevention programs. The report concludes that an investment of \$10 per person per year in proven community-based programs to increase physical activity, improve nutrition, and prevent smoking and other tobacco use could save the country more than \$16 billion in healthcare costs annually within 5 years. This is a return of investment of \$5.60 cents for every \$1 invested.

Harnessing this opportunity will require a true national strategy to combat obesity. At this time, we have no such national coordinated effort. It is time for a comprehensive, realistic plan that involves every department and agency of the Federal Government, State and local governments, businesses, communities, schools, families, and individuals.

Our leaders should be challenged to do their part to improve our Nation's health. We know that even small changes can make big differences in people's health. The challenge is a big one, but we can make a difference together.

Thank you again for the opportunity to testify, and I look forward to the discussion that follows.

[The prepared statement of Dr. Levi follows:]

## PREPARED STATEMENT OF JEFFREY LEVI, PH.D.

Good afternoon. My name is Jeffrey Levi, and I am the Executive Director of Trust for America's Health (TFAH), a nonpartisan, nonprofit organization dedicated to saving lives by protecting the health of every community and working to make disease prevention a national priority. I would like to thank the Chairman, the Ranking Member and the members of the subcommittee for the opportunity to testify on a very serious issue—the declining health of America's children, which is closely linked to our Nation's obesity epidemic. Today I would like to discuss the scope of childhood obesity in America, the potential factors that may be contributing to it, the health and economic impacts of obesity, and the importance of developing a national strategy to coordinate our response to obesity. By focusing on the impact of obesity on the health of our children, we have a chance to reshape society—and assure that our children live healthier lives than we do. If we do it right, I believe we will also improve the health and well-being of lots of adults in the process because the solutions to the obesity epidemic require a societal transformation that will benefit all of us.

## SCOPE OF THE PROBLEM

Overall, approximately 23 million children are obese or overweight, and rates of obesity have more than nearly tripled since 1980, from 6.5 percent to 16.3 percent.<sup>1</sup> Eight of the 10 States with the highest rates of obese children are in the South.<sup>2</sup>

According to a recent analysis from the National Health and Nutrition Examination Survey (NHANES), the number of U.S. children who are overweight or obese may have peaked, after years of steady increases. According to researchers from the Centers for Disease Control and Prevention (CDC), there was no statistically significant change in the number of children and adolescents (aged 2 to 19) with high BMI for age between 2003–2004 and 2005–2006.<sup>3</sup> This is the first time the rates have not increased in over 25 years. Scientists and public health officials, however, are unsure if the data reflect the effectiveness of recent public health campaigns to raise awareness about obesity and increased physical activity and healthy eating among children and adolescents, or if this is a statistical abnormality. Scientists expect to know more when the 2007–2008 NHANES data are analyzed. The 2005–2006 National Survey on Children's Health, a large national survey with State-specific data, is also due out in late 2008 and may offer another perspective on childhood obesity rates. Even if childhood obesity rates have peaked, the number of children with unhealthy BMIs remains unacceptably high, and the public health toll of childhood obesity will continue to grow as the problems related to overweight and obesity in children show up later in life. We should be setting a national goal to see childhood obesity rates return to 6.5 percent, the level prior to the start of this epidemic.<sup>4</sup>

## FACTORS CONTRIBUTING TO OBESITY RATES

How did this problem arise? In the simplest of terms, one could argue this is just a matter of physics—children today are eating more and moving less, which inevitably leads to increases in weight. That is true, but is only a part of the story.

- We have also created a physical environment that reinforces a less active lifestyle, and we have not compensated for this in the level of physical activity we promote in the schools.
- We have placed kids in a less nutritious environment—it is not just too much food, but too much bad food that kids are eating, and we have not harnessed the opportunities of the school to compensate for this.
- We have placed a particular burden on our poor and minority children, who are disproportionately overweight and obese, primarily because our poverty programs

<sup>1</sup>Ogden, C.L., M.D. Carroll, and K.M. Flegal. "High Body Mass Index for Age among U.S. Children and Adolescents, 2003–2006." *Journal of the American Medical Association* 299, no. 20 (2008): 2401–2405.

<sup>2</sup>U.S. Department of Health and Human Services, Health Resources and Services Administration, Maternal and Child Health Bureau. *National Survey of Children's Health 2003*. Rockville, MD: U.S. Department of Health and Human Services, 2005. <http://www.mchb.hrsa.gov/overweight/techapp.htm> (accessed April 22, 2008).

<sup>3</sup>Ogden, C.L., M.D. Carroll, and K.M. Flegal. "High Body Mass Index for Age among U.S. Children and Adolescents, 2003–2006." *Journal of the American Medical Association* 299, no. 20 (2008): 2401–2405.

<sup>4</sup>U.S. Department of Health and Human Services, National Center for Health Statistics. *Prevalence of Overweight Among Children and Adolescents: United States, 1999*. Hyattsville, MD: National Center for Health Statistics; 2001. <http://www.cdc.gov/nchs/products/pubs/pubd/hstats/overwght99.htm> (accessed July 14, 2008).

have not kept up with the rising cost of nutritious food; access to healthy foods is often limited in poor neighborhoods, and physical activity may be limited because of safety concerns or inadequate recreational facilities.

To reverse this trend, we need a national commitment to change the physical and social environment in which children live. By doing so, we will also help adults—as all Americans benefit from living in healthier communities.

The following is a sketch of the scope of the problem and some possible solutions. Our annual report on obesity, *F as in Fat: How Obesity Policies Are Failing in America*, is available at our Web site, [www.healthyamericans.org](http://www.healthyamericans.org), and provides a more comprehensive look at these issues. The 2008 edition will be released in August.

#### *Food and Physical Activity*

Many American children are consuming more calories, eating less healthful foods, engaging in less physical activity and instead spending their time engaging in sedentary activities. Overall, “added sugar” consumption for Americans is nearly three times the U.S. Department of Agriculture’s (USDA) recommended level,<sup>5</sup> and adolescent females ages 12–15 consumed approximately 4 percent more calories in 1999–2000 than they did in 1971–1974.<sup>6</sup> In 2003, a USDA report characterized America’s per capita fruit consumption as “woefully low” and noted that vegetable consumption “tells the same story.”<sup>7</sup> Moreover, since the 1970s, fast food consumption in children has increased five-fold. In the late 1970s, children received approximately 2 percent of their daily meals from fast food; by the mid-1990s, that increased to 10 percent. Children who consume fast food, as compared with those who do not, have higher caloric intake, more fat and saturated fat, and more added sugar.<sup>8</sup>

In addition to developing poor dietary habits, many children are becoming less physically active. For example, 30 years ago, nearly half of American children walked or biked to school; today, less than one in five either walk or bike to school.<sup>9</sup> Increased screen time—whether television or computers—is associated with higher rates of overweight and obesity. Furthermore, according to the CDC’s latest School Health Policies and Programs Study, only 3.8 percent of elementary schools, 7.9 percent of middle schools and 2.1 percent of high schools provided daily physical education or its equivalent. Some attribute at least part of this decline in physical activity programs to the academic requirements of No Child Left Behind. That is unfortunate as there is growing evidence that fitter more active students perform better academically.

#### *Health Impacts*

The health impacts of obesity and physical inactivity are dire and can start at a young age. Physical inactivity is tied to heart disease and stroke risk factors in children and adolescents. A number of studies have documented how obesity increases a child’s risk for a number of health problems, including the emerging onset of type 2 diabetes, increased cholesterol and hypertension among children, and the danger of eating disorders among obese adolescents.<sup>10</sup> Some studies have shown that obesity and overweight in children also negatively affect children’s mental health and school performance. The recent recommendation by the American Academy of Pediatrics for cholesterol screening of kids—with the possibility of prescription of cholesterol lowering drugs for young children—is just another tragic example of how much obesity has affected the health of our children.

#### *Economic Impact*

These health impacts come at a great cost to our Nation. According to the Department of Health and Human Services, obese and overweight adults cost the United

<sup>5</sup>Putnam, J., J. Allshouse, and L.S. Kantor. “U.S. per Capita Food Supply Trends: More Calories, Refined Carbohydrates, and Fats.” *Food Review* 25, no. 3 (2002): 1–14.

<sup>6</sup>Briefel, R.R. and C.L. Johnson. “Secular Trends in Dietary Intake in the United States.” *Annual Review of Nutrition* 24, (2004): 401–431.

<sup>7</sup>Putnam, J., J. Allshouse, and L.S. Kantor. “U.S. per Capita Food Supply Trends: More Calories, Refined Carbohydrates, and Fats.” *Food Review* 25, no. 3 (2002): 1–14.

<sup>8</sup>Asche, K. “Fast Foods May Increase Childhood Obesity Rates.” University of Minnesota Extension. (2005). <http://www.extension.umn.edu/extensionnews/2005/fastfood.html> (accessed July 14, 2008).

<sup>9</sup>McDonald, N.C. “Active Transportation to School: Trends among U.S. Schoolchildren, 1969–2001.” *American Journal of Preventive Medicine* 32, no. 6 (2007): 509–516.

<sup>10</sup>U.S. Department of Health and Human Services (USDHHS). *The Surgeon General’s Call to Action to Prevent and Decrease Overweight and Obesity*. Washington, DC: USDHHS, 2001.

States anywhere from \$69 billion to \$117 billion per year.<sup>11</sup> One study found that obese Medicare patients' annual expenditures were 15 percent higher than those of normal or overweight patients. The cost of childhood obesity is also growing. Between 1979 and 1999, obesity-associated hospital costs for children (ages 6 to 17 years) more than tripled, from \$35 million to \$127 million.<sup>12</sup>

The poor health of Americans of all ages is putting the Nation's economic security in jeopardy. More than a quarter of U.S.-health care costs are related to physical inactivity, overweight and obesity. Health care costs of obese workers are up to 21 percent higher than non-obese workers. Obese and physically inactive workers also suffer from lower worker productivity, increased absenteeism, and higher workers' compensation claims. To maintain our economic competitiveness and our general health and well-being, we must improve the health of America's next generation. To do that, we must improve diet and physical activity levels.

#### *National Security Impact*

The problem of obesity and overweight has reduced the number of volunteers for military service who must meet height and weight requirements. At a time when military recruiters are struggling to meet the needs of our Armed Forces, we are finding more and more volunteers who are overweight and obese. In 1993, 25.6 percent of 18-year-old volunteers were overweight or obese; in 2006 that percentage rose to almost 34 percent.<sup>13</sup> This problem continues during active duty. Each year between 3,000 and 5,000 service members are forced to leave the military because they are overweight.<sup>14</sup>

#### *An Environment That Discourages Physical Activity and Healthy Eating*

The built environment and community design can have a great impact on nutrition and physical activity levels. For children, the placement of schools and access to safe venues for physical activity are particularly important. One study found that the primary reason that children do not walk or bike to school is because their school is too far away. Other concerns included too much traffic, no safe route, fear of abduction, crime in the neighborhood, and lack of convenience.<sup>15</sup> A Government Accountability Office study found that "areas of low socioeconomic status and high minority populations had fewer venues for physical activity" and "adolescents in unsafe neighborhoods engage in less physical activity" than their peers. Even where opportunities for physical activity may be available—such as school playgrounds—many communities are encountering liability concerns as an impediment to after-hours use of these community resources.

Access to nutritious foods is another important issue that can affect children's health. Everything from the foods sold in schools to the presence or absence of grocery stores and markets selling fresh fruits and vegetables in communities to the foods that parents serve to their children can influence obesity levels and ultimately health care costs.

What occurs in schools can be critical—given the number of children who depend on school breakfast and lunch for their meals and the patterns that school food access can create for all children. In 2004, the Child Nutrition and WIC Reauthorization Act of 2004 (P.L. 108–265) required the U.S. Secretary of Agriculture to issue school nutrition guidelines that would ensure that American schoolchildren consume foods recommended in the most recent Dietary Guidelines for Americans (DGAs); however, USDA has issued no proposed regulations in the 3 years since the release of the 2005 DGAs.<sup>16</sup> Instead, USDA contracted with the Institute of Medicine (IOM) to convene a panel of experts on child nutrition. In late 2009, the IOM Committee on Nutrition Standards for School Lunch and Breakfast Programs is expected to provide USDA with recommendations for updating the school meal programs' nutri-

<sup>11</sup> U.S. Centers for Disease Control and Prevention. "Preventing Obesity and Chronic Diseases Through Good Nutrition and Physical Activity." U.S. Department of Health and Human Services, <http://www.cdc.gov/nccdphp/publications/factsheets/Prevention/obesity.htm> (accessed July 14, 2008).

<sup>12</sup> Ibid.

<sup>13</sup> Hsu, L.L., R.L. Nevin, S.K. Tobler, and M.V. Rubertone. "Trends in Overweight and Obesity among 18-Year-Old Applicants to the United States Military, 1993–2006." *The Journal of Adolescent Health* 41, no. 6 (2007): 610–612.

<sup>14</sup> Cable News Network. "Discharged Servicemen Dispute Military Weight Rules." *CNN.com*, September 6, 2000. <http://www.cnn.com/2000/HEALTH/09/06/military.obesity/index.html> (accessed May 2, 2008).

<sup>15</sup> U.S. Centers for Disease Control and Prevention (CDC). "Barriers to Children Walking and Biking to School—United States, 1999." *Morbidity and Mortality Weekly Report* 51, no. 32 (2002): 701–704.

<sup>16</sup> U.S. Department of Agriculture (USDA). Incorporating the 2005 Dietary Guidelines for Americans into School Meals. SP 04–2008. Washington, DC: USDA, 2007.

tion requirements. Once USDA receives the IOM recommendations, agency officials will then seek to incorporate them into formal USDA guidance, which is expected to be issued some time in 2010. A final rule will take even longer to be issued. This turn of events effectively postpones the update of school meal nutrition standards by 5 years beyond when they were due. Given the fact that school meal nutrition standards lack standards for sodium, trans fat, and whole grains, and that the fruit and vegetable content is too low, this delay is of considerable public health concern.

#### *Disparities*

Unfortunately, as with too many other health problems facing our Nation, obesity often disproportionately affects minorities and the poor. African-American children are almost twice as likely to be obese.<sup>17</sup> Black and Hispanic adolescents have higher rates of physical inactivity (by 5–6 percentage points).<sup>18</sup>

Equally disturbing, is the apparent relationship between being overweight and poverty. The National Survey on Children's Health (2003) shows that rates of overweight decline as income rises (22.4 percent of kids below 100 percent of poverty were overweight; only 9.1 percent of kids at 400 percent or more of poverty were overweight). Similarly, rates of physical inactivity are greater for poor kids (17 percent who were under 100 percent of poverty engaged in no vigorous physical activity each week; only 7.8 percent of those at 400 percent of poverty fell into that category). Eating healthier can be very expensive. Calorie dense foods tend to be less expensive; supermarkets are less likely to be accessible in poor neighborhoods; and poor children are more dependent on school nutrition programs, which are not always meeting the highest standards. The current rise in food prices raises serious concerns about the impact on obesity among poor children. Programs such as food stamps are not keeping up with rising prices and do not provide adequate financial incentives to encourage healthier eating by providing larger benefits for healthier food, though some notable improvements were made through the passage of the Food, Conservation, and Energy Act of 2008 (P.L. 110–246).

#### COMMUNITY PREVENTION

As a nation, we tend to over-medicalize health problems. In fact, given the state of today's science—medicine can only address the consequences of overweight and obesity, not prevent it. Real prevention requires changing the communities in which children (and adults) live and approaching this as a community-wide, not just an individual, challenge. It will also be the most cost-effective way to mitigate this epidemic. To truly tackle the obesity epidemic, we must make healthy choices easy choices for all Americans, regardless of where they live or what school they attend. We need a cultural shift, one in which healthy environments, physical activity and healthy eating become the norm.

Tomorrow Trust for America's Health will release a new report, *Prevention for a Healthier America: Investments in Disease Prevention Yield Significant Savings, Stronger Communities*, which examines how much the country could save by strategically investing in community disease prevention programs. The report concludes that an investment of \$10 per person per year in proven community-based programs to increase physical activity, improve nutrition, and prevent smoking and other tobacco use could save the country more than \$16 billion annually within 5 years. This is a return of \$5.60 for every \$1. The economic findings are based on a model developed by researchers at the Urban Institute and a review of evidence-based studies conducted by the New York Academy of Medicine. The researchers found that many effective prevention programs cost less than \$10 per person, and that these programs have delivered results in lowering rates of diseases that are related to physical activity, nutrition, and smoking. The evidence shows that implementing these programs in communities reduces rates of type 2 diabetes and high blood pressure by 5 percent within 2 years; reduces heart disease, kidney disease, and stroke by 5 percent within 5 years; and reduces some forms of cancer, arthritis, and chronic obstructive pulmonary disease by 2.5 percent within 10 to 20 years, which, in turn, can save money through reduced health care costs to Medicare, Medicaid and private payers.

<sup>17</sup> U.S. Department of Health and Human Services, Health Resources and Services Administration, Maternal and Child Health Bureau. *National Survey of Children's Health 2003*. Rockville, MD: U.S. Department of Health and Human Services, 2005.

<sup>18</sup> U.S. Centers for Disease Control and Prevention. "Youth Risk Behavior Surveillance—United States, 2007." *Morbidity and Mortality Weekly Report* 57, no. SS–4 (2008): 1–136.

## EXAMPLES OF SUCCESSFUL INTERVENTIONS

Community and school-based approaches aimed at using reducing obesity in the United States have already shown to be successful. The Child and Adolescent Trial for Cardiovascular Health (CATCH) elementary school program provides education for students, modifications for improvements in school lunches and physical education, and increased education for staff and teachers. Results have shown that students in the program consumed healthier diets and engaged in more physical activity.

The town of Somerville, MA developed a comprehensive program called “Shape Up Somerville” to curtail childhood obesity rates. The project included partners across the community. Various restaurants started serving low-fat milk and smaller portion sizes; the school district nearly doubled the amount of fresh fruit at lunch and started using whole grain breads; the town expanded a local bike path and repainted crosswalks; and the town targeted crossing guards to areas where children are most likely to walk to school. Researchers evaluated the program after 1 year and found that children in Somerville gained less weight than children in surrounding communities. (Growing children are expected to gain some weight.)

Another example of a coordinated approach to obesity reduction at the community level is the YMCA’s Pioneering Healthier Communities. This project supports local communities in promoting healthy lifestyles. Examples of interventions have included offering fruits and vegetables and encouraging physical activity during after school programs; influencing policymakers to “put physical education back in schools and include physical activity in after school programs”; building or enhancing bicycle and pedestrian trails; and increasing access to fresh produce in communities through community gardens, farmers markets and other activities.

## NATIONAL STRATEGY

Clearly, it has taken years for the childhood obesity epidemic to develop, and it will take a coordinated effort over time to begin to mitigate it. At this time, we have no national, coordinated effort to combat obesity. TFAH supports the development of a *National Strategy to Combat Obesity*. This needs to be a comprehensive, realistic plan that involves every department and agency of the Federal Government, State and local governments, businesses, communities, schools, families, and individuals. It must outline clear roles and responsibilities. Our leaders should challenge the entire Nation to share in the responsibility and do their part to help improve our Nation’s health. All levels of government should develop and implement policies to make healthy choices easy choices—by giving Americans the tools they need to make it easier to engage in the recommended levels of physical activity and choose healthy foods, ranging from improving food served and increasing opportunities for physical activity in schools to securing more safe, affordable recreation places for all Americans.

The “National Strategy for Pandemic Influenza Planning” provides a strong example for how this type of effort can be undertaken. With leadership and goals identified by health agencies and experts, every cabinet agency has taken charge of developing and implementing policies and programs in their jurisdiction that all contribute to our Nation’s preparedness for a pandemic flu outbreak. Similarly, the United Kingdom has announced an anti-obesity strategy to “transform the environment” in which people in England live, including launching a campaign to promote healthy living and healthy towns with bicycle and pedestrian routes.

## CONCLUSION

Our country needs to focus on developing policies that help Americans make healthier choices about nutrition and physical activity. We know that even small changes can make a big difference in people’s health—and that individuals don’t make decisions in a vacuum. If we want our children to lead healthy, productive lives, we need a strong partnership from the government, private and nonprofit sectors, as well as parents and teachers, to emphasize wellness and enhance nutrition and physical activity. The challenge is a big one, but we can make a difference together. Thank you again for the opportunity to testify.

## SUMMARY

Overall, approximately 23 million children are obese or overweight, and rates of obesity have nearly tripled since 1980. According to a recent analysis from the National Health and Nutrition Examination Survey (NHANES), the number of U.S. children who are overweight or obese may have peaked, after years of steady in-



creases. Scientists and public health officials, however, are unsure if this is a statistical abnormality. Even if childhood obesity rates have peaked, the number of children with unhealthy BMIs remains far too high, and the public health toll of childhood obesity will continue to grow as the problems related to overweight and obesity in children show up later in life.

A number of factors have contributed to the Nation's childhood obesity epidemic. Children are eating more and moving less, which inevitably leads to increases in weight, but that is only a part of the story. We have also created a physical environment that reinforces a less active lifestyle, and we have not compensated for this in the level of physical activity we promote in the schools. We have placed kids in a less nutritious environment—it is not just too much food, but too much bad food that kids are eating, and we have not harnessed the opportunities of the school to compensate for this.

The health and economic impacts of obesity are very serious. According to the Department of Health and Human Services, obese and overweight adults cost the United States anywhere from \$69 billion to \$117 billion per year. More than a quarter of U.S. health care costs are related to physical inactivity, overweight and obesity. To maintain our economic competitiveness and our general health and well-being, we must improve the health of America's next generation. To do that, we must improve diet and physical activity levels.

Real prevention requires changing the communities in which children (and adults) live and approaching this as a community-wide, not just an individual challenge. It will also be the most cost-effective way to mitigate this epidemic. To truly tackle the obesity epidemic, we must make healthy choices easy choices for all Americans, regardless of where they live or what school they attend. We need a cultural shift, one in which healthy environments, physical activity and healthy eating become the norm.

It has taken years for the childhood obesity epidemic to develop, and it will take a coordinated effort over time to begin to mitigate it. At this time, we have no national, coordinated effort to combat obesity. We need a National Strategy to Combat Obesity, a comprehensive, realistic plan that involves every department and agency of the Federal Government, State and local governments, businesses, communities, schools, families, and individuals. If we want our children to lead healthy, productive lives, we need a strong partnership from the government, private and nonprofit sectors, as well as parents and teachers, to emphasize wellness and enhance nutrition and physical activity.

Senator DODD. Thank you very, very much, and I have some questions for you, which I will raise in a few minutes.

Dr. LEVI. OK.

Senator DODD. Dr. Kaufman, thank you so much. Thank you very much. I attend every year, and am very active in the juvenile diabetes program in my home State of Connecticut. I have some wonderful friends with children who have diabetes, and we do a great effort in Connecticut. Thank you for your work.

**STATEMENT OF FRANCINE KAUFMAN, M.D., PAST NATIONAL PRESIDENT OF THE AMERICAN DIABETES ASSOCIATION, DISTINGUISHED PROFESSOR OF PEDIATRICS AND COMMUNICATIONS AT THE KECK SCHOOL OF MEDICINE AND THE ANNENBERG SCHOOL OF COMMUNICATIONS AT THE UNIVERSITY OF SOUTHERN CALIFORNIA, LOS ANGELES, CA**

Dr. KAUFMAN. Great. Thank you for your commitment.

Chairman Dodd, it is truly an honor to be here, and I thank you for allowing me the opportunity to testify before you today.

Examining the ravages of the obesity and diabetes epidemics in the United States and around the globe is not only what I do by my profession as a pediatric endocrinologist, but I do it as a passion. Obesity has reached epidemic proportions in the United States. It has increased in both genders and in all racial, ethnic, and socioeconomic groups.

With 198 million Americans estimated to be obese or overweight and the prevalence of diabetes now at nearly 24 million, it is urgent that Congress focus on this topic today.

Since 1990, the prevalence of obesity has tripled among our children and adolescents. As you said, one in three in the United States are now classified as overweight or obese. Of great importance is that childhood obesity is a significant predictor of obesity in adulthood.

Over the last 3 years, changes in demographics and societal norms have contributed to the rise of childhood obesity. We have seen dramatic changes in nutrition and physical activity habits of America's children. The vast majority of today's young children do not follow a nutritious diet, and only about a third get sufficient physical activity.

That is why it is not unusual for me when I see infants coming to me at my center in Los Angeles with soda in their baby bottles and when I am told that the first solid food given to that child was a French fry. Children who are overweight, obese, and unfit are at increased risk of becoming seriously depressed. They have fatty liver disease, and they develop high blood pressure, abnormal lipid levels, inflammation in their blood vessels, and higher than normal blood sugar values.

These last disorders are the precursors of adult-onset cardiovascular disease and type 2 diabetes. Dangerously, trends during the 1990s illustrate type 2 diabetes in youth, which was exclusively a disorder of the adult population when I began my career. Now type 2 diabetes has increased ten-fold in our youth, closely mirroring the childhood obesity epidemic.

As these epidemics have unfolded, we have found that both obesity and type 2 diabetes disproportionately affect minority and poor children. The prevalence of childhood obesity and type 2 diabetes among African-Americans, Mexican-Americans, and especially Native Americans exceeds that of other ethnic and racial groups. Estimates show that one in three children born in the year 2000 or beyond will develop diabetes at some point in their lives, but for minority children, this statistic is closer to one in two.

On a personal level, I have seen heartbreaking examples of childhood obesity epidemic in my medical practice. In 1995, I saw one of the first children who heralded in the type 2 diabetes epidemic in youth. She was a 13-year-old girl with a blood sugar value of 427 milligrams per deciliter, a value at least 5 times higher than normal. She weighed 267 pounds, and she was 5 foot, 1 inches tall.

She came into my office with her mother and her grandmother, who each weighed over 250 pounds. Her diet consisted of fried foods, candy bars, and soda, most of which she obtained inside her school, and outside meals from fast food restaurants because there were few grocery stores in her neighborhood. Her school did not offer meaningful physical education, and there was no place safe to play in her neighborhood. So, she watched 5 hours of TV a day.

Her grandmother had had uncontrolled type 2 diabetes and had suffered from a stroke and an amputation. The girl's mother had pre-diabetes, and even despite this strong family history, in 1995, it was hard to believe that a girl so young could have type 2 diabetes. It is not hard to believe it anymore.

This young girl left my office taking five medications, but still remained at high risk for the complications of diabetes. I knew it would be hard for her to control her disease, and I knew that, as a result, 15 years would likely be taken from her life. Although that day I felt as if I had been in a battle, over the subsequent years, it has become clear that I and my colleagues are really in a war, and it is a war that we have yet to win.

For my patient to do well, the world in which she lives will have to change. Her neighborhood, her school, her healthcare system that focuses on treatment rather than prevention, essentially the landscape of our country will have to transform so that it promotes and supports healthy lifestyle habits and makes healthy choices the easy choices and the accessible and affordable ones.

My patient will need to make changes, too. Without a supportive environment, those changes—eating well, getting active, losing weight—which may sound easy, have been impossible for her to do. Today, there is no doubt that obesity and youth, along with its associated myriad of medical conditions, is a major health challenge of the century.

There is no doubt that we have had some early efforts on the part of government, the private sector, and the medical and public health systems, but to date, they have not been sufficient to reverse the trend and control the number of children who are becoming overweight and obese and the number of children who are subsequently becoming ill. It is imperative that more be done to combat the ever-growing epidemics of obesity and diabetes.

I thank you for the opportunity to speak before you today. I know we share the passion of enabling the children of America to grow up healthy and well.

Thank you very much.

[The prepared statement of Dr. Kaufman follows:]

PREPARED STATEMENT OF FRANCINE KAUFMAN, M.D.

Chairman Dodd, Ranking Member Alexander and members of the subcommittee, good afternoon. My name is Dr. Fran Kaufman and I am a pediatric endocrinologist and professor of Pediatrics and Communications at the Keck School of Medicine and the Annenberg School of Communications at the University of Southern California. Examining the ravages of the obesity and diabetes epidemics in the United States and around the globe is not only my specialty, but also my passion. I thank you for holding this hearing and allowing me the opportunity to testify before you today on the dangerous health consequences of childhood obesity.

Obesity has reached epidemic proportions in the United States. It has increased in both genders, and in all racial, ethnic and socioeconomic groups. With 198 million Americans estimated to be overweight or obese according to the CDC and the prevalence of diabetes having risen to 23.6 million Americans—an increase of nearly 3 million people over the 2-year period from 2005 to 2007—it is especially valuable to be holding this hearing on this topic today.

We have seen the prevalence of obesity triple among children 6 to 11 years and adolescents 12 to 17 years since 1980.<sup>1</sup> A total of 9 million children ages 6 to 19 in the United States are now classified as overweight or obese. The overall prevalence of obesity in children was 17 percent in 2006. Alarming, we are seeing an increase in very young children, now over 1 in 5 young children 2 to 5 years of age are overweight or obese. Of great importance is the fact that obesity in childhood is a significant predictor of obesity in adulthood.

<sup>1</sup>National Health and Nutrition Examination Surveys (NHANES) (Ogden, C.L., Flegal, K.M., Carroll, M.D., Johnson, C.L.: Prevalence and Trends in Overweight Among United States Children and Adolescents, 1999–2000. JAMA 288:1728–1732, 2002).

Many researchers have placed the origin of the childhood obesity epidemic at the beginning of the 1980s. Since that time, we have seen dramatic changes in the nutrition and physical activity habits of American children, along with changes in demographics and societal norms that have all contributed to the rise in childhood obesity. According to the CDC only 20 percent of students eat the recommended 5 servings of fruits and vegetables per day and only 2 percent of children currently meet the USDA's 5 main healthy diet recommendations. Additionally only 35 percent of students are physically active for at least 60 minutes per day meeting the recommended guidelines. Barely more than half of students, 54 percent, attend physical education classes at least 1 day a week.

During childhood, obesity impairs psychosocial well-being and obese children are socially isolated. They perform poorly in school and have a poorer self-image than children who have a normal weight. Obesity in children is associated with severe impairments in quality of life. In fact, obese children have characterized their lives as being equal to those of children with cancer.

Childhood obesity is associated with serious metabolic disturbances, obstructive sleep apnea, asthma, fatty liver disease, orthopedic problems, ovarian dysfunction, and chronic kidney ailments. Children who are overweight, obese and unfit are at an increased risk of developing high blood pressure, abnormal lipid levels, inflammation in their blood vessels, and higher than normal blood sugar levels.

These factors are the precursors of adult-onset cardiovascular disease and diabetes. During the mid-1990s, type 2 diabetes in youth increased ten-fold in the United States, and mirrored the childhood obesity epidemic. Diabetes is a chronic condition in which the pancreas either does not create any insulin, which is type 1 diabetes, or the body doesn't create enough insulin and/or cells are resistant to insulin, which is type 2 diabetes.

Diabetes is the leading cause of kidney disease, adult onset blindness, and lower limb amputations and can lead to heart disease and stroke.

Childhood obesity disproportionately affects minority and poor children. The prevalence of childhood obesity among African-Americans, Mexican-Americans and Native Americans exceeds that of other ethnic groups. The Centers for Disease Control reported that in 2000 the prevalence of obesity was 19 percent for non-Hispanic black children and 20 percent for Mexican-American children, compared to 11 percent for non-Hispanic white children. The increase since 1980 is particularly evident among non-Hispanic black and Mexican-American adolescents.

Similarly, type 2 diabetes in the pediatric population is disproportionately seen in Hispanic, Native American, and African-American adolescents. Estimates show that one in three children born in the year 2000 will develop diabetes at some point in his or her life, but this statistic is nearly one in two for minority children. The SEARCH for Diabetes in Youth Population Study, sponsored by the CDC and NIH, found that the proportion of all diabetes that was diagnosed as type 2 varied by ethnicity among 10- to 19-year-olds: 6 percent for non-Hispanic whites, 22 percent for Hispanics, 33 percent for African-Americans, 40 percent for Asians/Pacific Islanders, and 76 percent for Native Americans.<sup>2</sup>

An extraordinary example of the rise of type 2 diabetes in youth is shown through the marked increase in the prevalence of type 2 diabetes in Pima Indian youth over the last 20 years. Before the 1990s, almost no younger children and less than 1 percent of older children in the Pima Indian community had type 2 diabetes. By the mid-90s, 2.2 percent of 10- to 14-year-olds and 5 percent of those 15- to 19-year-olds had type 2 diabetes.<sup>3</sup> As a result of diabetes, many young adults who developed the disease as adolescents are now suffering prematurely from the long-term complications of this devastating disease.

Of further concern, the significant rise in obesity in children has been accompanied by an increase in the severity of obesity, and there are differences in the degree of obesity among racial groups. The prevalence of severe obesity (BMI >30 kg/m<sup>2</sup>) in female adolescents was approximately 10 percent in non-Hispanic whites, 20 percent in non-Hispanic blacks and 16 percent in Mexican-Americans.

In one of the NIH studies of which I am the chair, called the HEALTHY middle-school trial, we have found that low-income, minority middle school students in 7 cities across the country have high rates of pre-diabetes associated with overweight and obesity. Pre-diabetes is a condition that is diagnosed when someone has a high-

<sup>2</sup>Liese, A.D., D'Agostino, R.B., Jr., Hamman, R.F., Kilgo, P.D., Lawrence, J.M., Liu, L.L., Loots, B., Linder, B., Marcovina, S., Rodriguez, B., Standiford, D., Williams, D.E.: The Burden of Diabetes Mellitus Among U.S. Youth: Prevalence Estimates from the SEARCH for Diabetes in Youth Study. *Pediatrics* 118:1510-1518, 2006.

<sup>3</sup>Dabelea, D., Hanson, R.L., Bennett, P.H., Roumain, J., Knowler, W.C., Pettitt, D.J.: Increasing Prevalence of Type II Diabetes in American Indian Children. *Diabetologia* 41:904-910, 1998.

er than normal fasting blood sugar level or a higher than normal value after a glucose tolerance test, but not one in the diabetes range. An estimated 57 million Americans have pre-diabetes today.<sup>4</sup> In adult studies the conversion rate is about 10 percent per year. In this particular study we found that 39 percent of 8th graders and 14 percent of 6th graders, these are 13- and 11-year-old children, respectively, had pre-diabetes, with the highest rates found in Hispanic and American Indian youth. Not only did these 13-year-old students have abnormal blood glucose levels, but 15 percent had high blood pressure, half had abnormal lipid levels, and 8 percent had fatty liver disease. Fatty liver disease is also a new phenomenon in youth, and there is an indication that this might lead to early liver failure, which if not treated with a liver transplant will result in death. Fatty liver disease is more common in obese boys than in obese girls, and differs significantly by race/ethnicity. In obese children ages 2–19, 65 percent of Hispanics, 35 percent of whites and 10 percent of blacks had fatty liver disease.<sup>5</sup>

On a personal level, I have seen heart-breaking examples of the childhood obesity epidemic in my medical practice. I remember one of the first children I saw with type 2 diabetes just as this epidemic was beginning. It was in the middle of spring in 1995. She was a 13-year-old girl with a blood sugar level of 427 mg/dl, at least five times higher than normal for a young teen. She weighed 267 pounds. She came to my office with her mother and grandmother, they each weighed about 250 pounds. She had been drinking a lot of juice and soda throughout her life. Her diet consisted of fried foods, candy bars, and meals from fast food restaurants. She did not have access to meaningful physical education courses in her school curricula and there was nowhere safe to play in her neighborhood. She watched 5 hours or more of TV a day.

Her grandmother had type 2 diabetes and had never controlled her blood sugar levels. Five years earlier she had suffered from a stroke and an amputation. My patient's mother had been diagnosed with pre-diabetes. Despite her strong family history of diabetes, no one believed that this 13-year-old girl had this disease—because she was just too young.

Her mother told me she watched diabetes destroy her own mother, and she did not want to see that happen to her child. To control her high blood sugar level, her high blood pressure, and her high cholesterol, this young girl left my office taking five medications. Even still, she remained at high risk and it would be hard to control her disease and all its attendant problems. I knew that at least 15 years would be peeled off this young woman's life.

That day I felt as if I had been in a battle, but I am really in a war. A war we have yet to win. For my patient to do well, the world in which she lived would have to change. Her neighborhood, her school, the healthcare system that focuses more on treatment than prevention—our country—would have to transform so that it promotes and supports healthy lifestyle habits and make the healthy choices the easy choices—the accessible and affordable choices. My patient would need to make changes too, but without a supportive environment, those changes,—eating well, getting active and losing weight—might be impossible for her to make. In my office in 1995, I knew that a world of battles would have to be fought for my patient, and for too long that war has been going on. As I stand before you today, I am hopeful the time has come for the war to be won.

Today, there is no doubt that obesity in youth, along with its associated medical conditions, is the major health challenge of this century. Although attention has been paid to this problem by government and public health officials, researchers, and health care providers, the number of overweight and obese youth continues to increase. More needs to be done to combat the ever growing epidemics of obesity and diabetes.

Again, thank you for the opportunity to speak before you today. I look forward to the opportunity to answer any of your questions.

Senator DODD. Thank you very much, Dr. Kaufman.

Dr. Grey, thank you very much for being with us as well.

You will see, by the way, we have been joined by Senator Harkin and Senator Murkowski, and I thank you both for being here.

We will let our witnesses finish, and then I am going to ask each of you to make some opening comments, if you would. Is that OK?

<sup>4</sup> Centers for Disease Control and Prevention, 2007 National Diabetes Fact Sheet.

<sup>5</sup> Schwimmer, J.B., Deutsch, R., Kahen, T., Lavine, J.E., Stanley, C., Behling, C.: Prevalence of Fatty Liver in Children and Adolescents. *Pediatrics* 118:1388–1393, 2006.

Go ahead, Dr. Grey.

**STATEMENT OF MARGARET GREY, DrPH, R.N., FAAN, DEAN  
AND ANNIE GOODRICH PROFESSOR, YALE SCHOOL OF  
NURSING, NEW HAVEN, CT**

Ms. GREY. Senator Dodd and Senators Harkin and Murkowski, thank you so much for the opportunity to speak with you today about childhood obesity.

In my 30 years of experience, I have found that the obesity epidemic in youth is multifaceted, threatening not only their future health, but their quality of life, their potential for educational achievement, and ultimately, future employment potential.

As a nurse with training in both public health and social psychology, my interest has always been in preventing illness and, in the case of obesity and diabetes, preventing complications. When I began working in this field in the 1970s, I never saw a child with type 2 diabetes. Now up to 50 percent of new cases of diabetes in children are type 2 diabetes, what we used to call “adult-onset” diabetes.

While it is most common in teens, we have had children as young as 5 years old with type 2 diabetes in our service. Worse, it appears that this diabetes is very aggressive, and these youth develop the devastating complications of diabetes—cardiovascular disease, kidney disease, blindness, and amputations—at an early age. Indeed, the early longitudinal studies of these youth suggest that while they are in their 20s, they are already having heart attacks and on renal dialysis.

Beyond physical complications, there are complications related to quality of life, depression, and academic achievement. Let me illustrate how serious these complications can be.

Quality of life refers to self-reported physical, emotional, social, and school functioning. In 2003, a research study found that obese teens have lower quality of life than teens with cancer. If childhood overweight and obesity lead to a reduced quality of life, then these youth are at risk for psychological, social, and educational complications along with the medical ones.

With funding from the National Institutes of Nursing Research, my colleagues and I have been studying approaches to prevent type 2 diabetes in youth who are overweight or obese and have a family history of type 2 diabetes. These are the youth who will be most likely to develop diabetes in the next 5 to 10 years.

In the New Haven middle schools where we conducted our work, we identified that at least 30 percent of these overweight high-risk youth had levels of depression requiring referral of treatment. This isn't minor sadness. This is serious depression. Those who were depressed also had much poorer dietary and activity behaviors, lower self-efficacy, higher body mass index, and higher fasting insulin levels.

From studies of adults with diabetes, we know that depression is not uncommon and associated with poor physical health as well as poor self-care. We also know that the obesity epidemic is disproportionately affecting youth of racial and ethnic minorities and of lower income. These youth may be especially susceptible to depression, creating a situation of extremely high risk.

We all know that depression is a risk factor for suicide, and a child who dies from the psychological complications of obesity is just as dead as the one who dies from the physical complications 10 years from now.

The New Haven intervention to prevent type 2 diabetes was developed based on my own research with a behavioral intervention called coping skills training. Early on in this process, we found that these middle school youth had never learned basic nutrition. Many of these families had no access to quality fruits and vegetables, and physical education in the schools emphasize sports, not individual activity. So that, the youth who needed to participate the most were most often found on the sidelines.

In addition, as has been stated earlier today, many of these children had no access to safe places to be active, nor did they have any confidence that they could change any of these health behaviors. The intervention that we did, targeted at seventh graders, included nutrition education, non-sports physical activities, and the behavioral skills necessary to implement what they learned.

During the 12-month followup, youth who received the entire program had lower body mass index, decreased insulin resistance, improved dietary and activity behaviors, decreased depression, and improved confidence in their ability to sustain these behaviors.

On the issue of school performance, a recent review found that overweight and obese youth had poorer performance than those of normal weight, with lower math and reading scores. They also were more likely to be held back, miss more days of school, and boys were more likely to expect to drop out of school.

Even more disturbing is the finding that men and women who were obese as teenagers had significantly fewer levels of schooling by adulthood. The reasons for this are unclear. It may be due to the psychosocial complications of obesity, and it may be due to mildly high blood sugar levels through the day that affect cognitive abilities.

The ramifications of these psychosocial and educational complications of obesity are clear. It is doubly hard to change lifestyle when children and youth are depressed, and poor school performance now predicts a lifetime of struggle later, not to mention the potential for absenteeism at work, affecting performance and the ability to stay employed.

In this area of work, the need for more research into programs that can prevent obesity is critical. Once these habits are learned and engrained, it is much more difficult to change behavior. More studies of community-based approaches that reach children and families at a young age in their communities are needed.

I would be remiss if I did not make the case that funding for NIH and CDC, as well as the National Institute of Nursing Research, which is the only institute at NIH focused on prevention and enhancement of self-management of chronic illness, needs to be increased to allow more of this kind of research to help us solve this problem.

This generation of youth will not survive if we continue to pay for their heart attacks, but not for the intensive care that it will take to reduce this epidemic. None of us wishes for this generation

to be the first to have a lifespan and quality of life that is lower than that of the previous generation.

Thank you for your attention. Thank you for the invitation. I look forward to the discussion.

[The prepared statement of Ms. Grey follows:]

PREPARED STATEMENT OF MARGARET GREY, DRPH, R.N., FAAN

Thank you for the opportunity to speak with you today about this very serious problem. My name is Margaret Grey, and I am a pediatric nurse practitioner with training in both public health and social psychology. For over 30 years, my area of research and practice has been pediatric diabetes. As you know, and as others on the panel have reiterated, the obesity epidemic in youth threatens not only the future of these children with chronic diseases and a decreased lifetime, this epidemic is multi-faceted and will ultimately affect the workforce and thus the economy.

As a nurse, my interest has always been on prevention—preventing illness and, in the case of obesity and diabetes, preventing complications. The obesity epidemic has led to an entire generation of youth developing type 2 diabetes in childhood, not in adulthood or old age as we are more used to seeing. When I began in this field in the 1970s, we never saw a child with type 2 diabetes. Now, depending on the clinic, up to 50 percent of new cases of diabetes in children are type 2 diabetes as opposed to type 1 (which was formerly known as juvenile diabetes). While it is most common in teens, in our clinic, we have seen children as young as *5 years old* with type 2 diabetes. Worse, it appears that this diabetes is very aggressive and these youth develop the devastating complications of diabetes—cardiovascular disease, kidney disease, blindness and amputations—at an early age. Indeed, the longitudinal studies of these youth suggest that while they are in their 20s, they are already having heart attacks and receiving dialysis.

While these physical complications are critically important concerns, there are also complications related to quality of life, depression, and academic achievement. Let me illustrate how serious these complications can be. Quality of life refers to self-reported physical, emotional, social, and school functioning. In 2003, Schwimmer reported that in a comparative study that obese teens have lower quality of life than teens without a chronic condition or those with cancer! This finding was more recently replicated in a community sample. So why does quality of life matter? If childhood overweight and obesity lead to reductions in health-related functioning, then these youth are at risk for psychological, social, and educational complications. I will explain this further.

Related to quality of life is depression. With funding from the National Institutes of Nursing Research, my colleagues and I have been studying approaches to preventing type 2 diabetes in youth at high risk for its development by virtue of overweight or obese status and a family history of type 2 diabetes. In our studies in the New Haven School System middle schools, we have identified that at least 30 percent of these overweight, high risk youth have levels of depression—not temporary sadness or the “blues”—but depression requiring referral and treatment. Those who were depressed had much poorer dietary and activity behaviors, lower self-efficacy, higher Body Mass Index (even among the already overweight), and higher fasting insulin levels (indicating a higher risk for type 2 diabetes). From studies of adults with diabetes, we know that depression is not uncommon and is associated with poorer physical health as well as poorer self-care. In addition, the obesity epidemic is disproportionately affecting youth of racial and ethnic minorities and of lower income. These youth may be especially susceptible to depression, creating a situation of extremely high risk. We all know that depression is a risk factor for suicide, and as I have often said, as much as we worry about the physical complications of obesity, a child who commits suicide is just as dead as one who suffers from the physical complications.

Our intervention to prevent type 2 diabetes in high risk youth in the middle schools was developed based on my own research with a behavioral intervention called Coping Skills Training and with collaboration of teachers and school nurse practitioners. Early on in this process, we learned that these middle school youth had never learned basic nutrition, so that we had to teach the difference between starches, proteins, and fats. We also learned that many of these families have no access to quality fruits and vegetables in the inner city besides a head of old iceberg lettuce (and we wonder why they look at us funny when we suggest they eat salads every day!). Physical education programs in the schools emphasized sports, so that the youth who needed to participate the most were most often found watching and not playing. There was little to no emphasis on activity that could occur without



a team. Finally, many of these children had no access to safe places to be active, nor did they have any confidence that they could change any of their health behaviors.

The program was designed to be taught by the teachers in the 7th grade and included nutrition education, non-sports physical activity, and the behavioral skills (such as problem solving, social skills, assertiveness, and cognitive behavior modification) necessary to implement what they learned. Over the course of the 12 months of follow-up, we found that the youth who received the entire program, compared to just the nutrition education, had lower BMI, decreased insulin resistance (a marker of risk for diabetes), improved dietary and activity behaviors, decreased depression, and improved confidence in the ability to sustain these behaviors. We are now in the process of testing this program throughout the New Haven middle schools and in several other school districts.

You may wonder if these concerns are confined to racial and ethnic minorities and the inner cities. They are not. While obesity rates in youth average 20 percent, they are merely higher in these communities. And, our recent studies tell us that concerns about school lunches being high in fat and low in fruits and vegetables are equally of concern in suburban middle class communities. One of our students recently analyzed school lunch menus in five Connecticut schools—both inner city and suburban—and found that while portion sizes were appropriate, percentage of calories from fat exceeded guidelines, even before the children went to the vending machines and purchased sodas and fried snacks.

The final topic I will address is the effect of obesity on school performance. A recent review found that overweight and obese youth had poorer school performance than those of normal weight. Obese and overweight youth had lower math and reading scores, were more likely to be held back, missed more days of school, and boys were more likely to expect to quit school. Even more disturbing is the finding that men and women who were obese as teens had significantly fewer years of school by young adulthood. The reasons for this are unclear: the psychosocial complications of obesity may lead to decreased motivation, but it is also possible that there is a physiologic cause. We know from studies of youth with diabetes that even mildly elevated blood glucose levels are associated with cognitive declines, so it's possible that some of these youth have high glucose levels during the school day and just can't think the same way those of normal weight and glucose levels can.

The ramifications of all of these psychosocial and educational complications of obesity are clear. It's doubly hard to change lifestyle when they are depressed. Depression may lead to suicide. Poor school performance often predicts a lifetime of struggle and lower income, not to mention the potential for absenteeism at work affecting performance and the ability to stay employed.

In this area of work, the need for more research into programs that can prevent obesity before it happens is critical. Once habits are learned and ingrained, it is much more difficult to change behavior. For example, we are beginning a study to help pregnant women lose weight after pregnancy, because we know that children of these women are more likely to be overweight by age 2 than children of women who have lost their pregnancy weight. Such research will take longer than the usual NIH grant of 3–5 years to demonstrate convincingly that this kind of approach will reduce rates of childhood obesity. More studies of community-based approaches that reach children and families at a young age in their communities are needed. As important as these school-based studies are, they focus more on treatment of obesity that has already occurred than in prevention. And, I would be remiss if I did not make the case that the funding of NIH and NINR in particular, the only one with prevention and enhancement of self-management of chronic conditions as major focus areas, needs to be increased to allow for more of the studies I have described.

With regard to health policy, I cannot emphasize enough that this generation of youth cannot survive if we continue to pay for the care of their heart attacks, but not for the intensive behavioral care that it will take to reverse this epidemic. I am sure that none of us wishes to be partially responsible for this being the first generation in many years to have a lifespan lower than the previous generation because we didn't act.

Thank you for the invitation and your attention. I look forward to your comments and questions.

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Senator DODD. Doctor, thank you immensely and wonderful testimony. Thank you for your work over the years, more importantly. Bruce, welcome back to the committee.

**STATEMENT OF BRUCE LESLEY, PRESIDENT, FIRST FOCUS,  
WASHINGTON, DC**

Mr. LESLEY. Thank you. Good afternoon, Chairman Dodd, Senators Harkin and Murkowski, and staff of the Children and Families Subcommittee.

Having served as staff for Senator Bingaman with this committee for 6 years, it is a real honor to be here today and to be before such champions for children's health generally and childhood obesity issues specifically.

I am Bruce Lesley, president of First Focus, a bipartisan children's advocacy organization dedicated to making children and families a priority in Federal policy. Thank you for the opportunity to testify today on this issue and on the childhood obesity epidemic and its role in the rapidly declining health of our future generation.

This is an American issue that affects not only our children, but all of our future. There is also a choice between investing now and improving the health and well-being of America's children or dealing with the effects of childhood obesity and related preventable diseases with today's young people as they become adults.

Childhood obesity is a growing public health crisis. As you know, over the past 30 years, obesity rates have more than tripled for preschool children and adolescents, quadrupled for children ages 6 to 11. Today, one third of children in the United States are obese or at risk of becoming obese. Sadly, our adolescents are now the most obese teenagers in the world, and we have reason to be concerned. These teens have up to an 80 percent chance of becoming overweight as adults.

You have heard about the health consequences from my colleagues here, but also the costs of childhood obesity are staggering. A 2000 report of the U.S. Surgeon General estimated the cost at \$117 billion annually, and all signs indicate that it will continue to grow. Treating an obese child is more costly than treating an average weight child, obviously. An overweight child is likely to visit an emergency room more frequently and two to three times more likely to be hospitalized.

Estimates suggest that annual hospital costs associated with obese children and youth have more than tripled in less than 2 decades. Scientists, as discussed earlier, now forecast a 2- to 5-year drop in life expectancy for children of today unless we take aggressive actions to address and reverse the obesity epidemic.

One of the interesting things is that we have conducted some polling that shows for the first time ever, American adults believe that the next generation will be worse off than the current generation. I think there are a lot of reasons that go into that, but one of them is the issues of the health of children.

There was a national poll on children's health that was conducted by C.S. Mott Children's Hospital that shows that obesity is for the first time identified by adults as the top health problem for children after being rated third last year. It has been one of those issues that over time has gone up the scale.

Concern with the high rate of obesity among U.S. children and the reality that they could face increased risk of heart disease as adults, the American Academy of Pediatrics recently recommended wider cholesterol screening for children and more aggressive use of cholesterol-lowering drugs for children as young as age 8. While we agree that we are in desperate need of solutions, this is hardly a viable one. Sadly, there will be no magic pill that can erase this problem.

The fact of the matter is that despite all the research and these dismal statistics, our Nation's broader response to the childhood obesity epidemic has been woefully inadequate. While we invest heavily in the treatment and management of chronic diseases, in adults, we spend very little for the prevention and treatment of childhood obesity that would stave off the onset of conditions like heart disease and type 2 diabetes.

As Julie Gerberding, director of the CDC, recently noted, we put way too much emphasis on treating disease rather than protecting health in the first place. According to Gerberding, today only a nickel out of every medical dollar spent in the United States goes toward keeping Americans healthy. This is part of a broader pattern of declining investments in our future.

As a new First Focus report—Children's Budget 2008—highlights, over the past 5 years, the share of Federal nondefense spending that goes to children and children's programs has declined by 10 percent. In fact, real Federal discretionary spending on children will be lower this year than it was 5 years ago.

Kids' Share 2008, an Urban Institute report released at the Capitol Hill briefing last week, confirms this trend and details the overall decline in Federal spending on children over the past four and a half decades. It has found that since 1960 the share of Federal spending that goes to children has dropped by more than 20 percent.

The time for action is now. One thing just as a personal point, as I worked with all of your offices on an amendment a few years ago that was to the agriculture bill. As I recall, it was Bingaman, Dodd, Harkin, Murkowski, and I think even Senator Coburn as co-sponsors. It was an amendment that I worked on with all of your staffs, and ultimately, it resulted in an increase in a fresh fruits and vegetables program, which is a long-time initiative by Senator Harkin that has now become law in the Farm bill. It is those kinds of steps that we need to be taking.

As the Institute of Medicine report "Progress in Preventing Childhood Obesity: How Do We Measure Up?" noted, addressing the childhood obesity epidemic is a collective responsibility involving multiple stakeholders in different sectors between the Federal Government, State and local governments, communities, schools, industry, media, and families.

The Federal Government can—really it must—play a critical role in reversing this epidemic by providing leadership, coordinated ef-

forts across agencies, and investing in research and sustained prevention and intervention strategies. We believe Congress can take several steps now to address this threat, and it is one of the things that we really want to emphasize that it is across areas. It is everything from public health programs. It is daily activities in schools.

I note, for example, that Senator Dodd's bill on the 21st Century Community Learning Centers Act includes a provision that would add physical fitness and wellness programs as allowable activities. Under the 21st Century Community Learning Centers Act, we need to target investments in research, but it also includes coverage issues. The SCHIP program, for example, making sure that children have health coverage. Also, there was language in that bill that provided demonstration grants for childhood obesity efforts.

It includes things like dealing with competitive foods and beverages in schools. We include a bunch of the recommendations in our testimony, and as those highlight childhood obesity is not just a healthcare issue, it is clearly an education issue, a transportation issue, an agriculture issue, an economics issue, and a public health issue.

Given the complexity of the problem, it is easy to see why responsibility for addressing it is passed from one agency to the other. Unfortunately, no one in the Federal Government seems to own this issue. We must ensure that all Federal agencies with a role to play—including the CDC, NIH, Department of Agriculture, and Department of Transportation—work together to address the childhood obesity epidemic.

In a glimmer of good news, the data and research also shows that we can reverse the current trend and lower the incidence of a host of deadly diseases associated with obesity if we take action now.

Thank you all for your leadership and for the opportunity to provide testimony. I welcome any questions.

[The prepared statement of Mr. Lesley follows:]

#### PREPARED STATEMENT OF BRUCE LESLEY

Good morning Chairman Dodd, Ranking Member Alexander, and members and staff of the Children and Families Subcommittee. Having served as a staffer for Senator Bingaman, with this committee, it is a real honor to be here today.

I am Bruce Lesley, President of First Focus, a bipartisan children's advocacy organization dedicated to making children and families a priority in Federal policy and budget decisions.

Thank you for the opportunity to testify today on the childhood obesity epidemic and its role in the rapidly declining health of our next generation. This is an American issue that affects not only our children but all of our futures. It is also a choice between investing now in improving the health and well-being of America's children, or dealing with the effects of childhood obesity and related preventable diseases when today's young people become adults.

Childhood obesity is a growing public health crisis. As you know, over the past 30 years, obesity rates have more than tripled for preschool children and adolescents, and quadrupled for children ages 6–11.<sup>1</sup> Today, one-third of children and youth in the United States are obese or at-risk of becoming obese.<sup>2</sup> Sadly, our adolescents are now the most obese teenagers in the world. And we have reason to be

<sup>1</sup>Institute of Medicine of the National Academies. *Progress in Preventing Childhood Obesity: How Do We Measure Up?* Washington, DC: National Academies Press, 2006.

<sup>2</sup>Institute of Medicine of the National Academies. *Progress in Preventing Childhood Obesity: How Do We Measure Up?* Washington, DC: National Academies Press, 2006.

concerned. These teens have up to an 80 percent chance of becoming overweight or obese adults.<sup>3</sup>

Through our research and our advocacy, we know that the rates of obesity and related diseases are even more alarming for minority children. For instance:

- In the United States, Hispanic boys and African-American girls have the highest prevalence of obesity.<sup>4</sup>
- Overweight prevalence increased by 120 percent for African-American and Hispanic children between 1986 and 1998 in comparison to an increase of 50 percent for whites.<sup>5</sup>
- A national survey of American Indian children ages 5 to 18 found that 39 percent were overweight or at risk for becoming overweight.<sup>6</sup>

Obesity translates into more than just expanding waistlines. Obese children are being diagnosed with health problems once only seen in adults—such as type 2 diabetes, high cholesterol, high blood pressure, and even child gallstones. Overweight children are also at higher risk for heart disease, stroke, and several forms of cancer.<sup>7</sup>

The direct and indirect costs associated with obesity in the United States are staggering. A 2000 report of the U.S. Surgeon General estimated the costs at \$117 billion annually and all signs indicate that it will continue to grow.<sup>8</sup> Treating an obese child is more costly than treating an average-weight child and an overweight child is likely to visit an emergency room more frequently and two to three times more likely to be hospitalized.<sup>9</sup> Estimates suggest that annual hospital costs associated with obese children and youth have more than tripled in less than two decades.<sup>10</sup>

Scientists now forecast a 2- to 5-year drop in life expectancy for children of today, unless we take aggressive action to address and reverse the obesity epidemic. In fact, a 2005 study published in *The New England Journal of Medicine* concluded that “if childhood obesity continues unabated, people will have shorter lives because of the health toll of being heavy at such a young age.”<sup>11</sup> One of the study authors, pediatric endocrinologist David Ludwig describes childhood obesity as a “massive tsunami headed toward the United States.” Ludwig goes on to explain,

“It’s like what happens if suddenly a massive number of young children start chain smoking. At first you wouldn’t see much public health impact. But years later it would translate into emphysema, heart disease, and cancer.”

Concerned with the high rate of obesity among U.S. children and the reality that they could face increased risk of heart disease as adults, the American Academy of Pediatrics (AAP) recently recommended wider cholesterol screening for children and more aggressive use of cholesterol-lowering drugs for children as young as age 8. While we agree that we are in desperate need of solutions, this is hardly a viable one. Sadly, there will be no magic pill that can erase this problem.

The fact of the matter is that despite all of the research and these dismal statistics, our Nation’s broader response to the childhood obesity epidemic has been woefully inadequate. While we invest heavily in the treatment and management of chronic diseases in adults, we spend very little for the prevention and treatment of childhood obesity that would stave off the onset of conditions like heart disease and type 2 diabetes. As Julie Gerberding, Director of the Centers for Disease Control

<sup>3</sup>Torgan, C. (2002). *Childhood Obesity on the Rise*. The NIH Word on Health. Downloaded from: <http://www.nih.gov/news/WordonHealth/jun2002/childhoodobesity.htm>.

<sup>4</sup>Institute of Medicine of the National Academies. *Childhood Obesity in the United States: Fact and Figures*. Fact Sheet. September 2004.

<sup>5</sup>Stauss, R.S., Pollack, H.A. (2001). Epidemic Increase in Childhood Overweight. *JAMA*, 286:2845–8.

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<sup>8</sup>U.S. Department of Health and Human Services. *The Surgeon General’s Call to Action to Prevent and Decrease Overweight and Obesity*. U.S. Department of Health and Human Services, Public Health Service, Office of the Surgeon General. 2000.

<sup>9</sup>Marder, W.D. & Chang, S. (2005). *Childhood Obesity: Costs, Treatment Patterns, Disparities in Care, and Prevalent Medical Conditions*. Thomson Medstat Research Brief. Retrieved at [http://www.medstat.com/pdfs/childhood\\_obesity.pdf](http://www.medstat.com/pdfs/childhood_obesity.pdf).

<sup>10</sup>Institute of Medicine of the National Academies. *Preventing Childhood Obesity: Health in the Balance*. Washington, DC: National Academies Press, 2005.

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and Prevention (CDC) recently noted, “we put way too much emphasis on treating disease rather than protecting health in the first place.” According to Gerberding, today, only a nickel out of every medical-care dollar spent in the United States goes toward keeping Americans healthy.

This is part of a broader pattern of declining investments in our future. As a new First Focus report, *Children’s Budget 2008* highlights, over the past 5 years, the share of Federal non-defense spending that goes to children and children’s programs has declined by 10 percent and in fact, real Federal discretionary spending on children will be lower this year than it was 5 years ago. *Kids’ Share 2008*, a First Focus-sponsored Urban Institute report released at a Capitol Hill briefing last week, confirms this trend, and details the overall decline in Federal spending on children over the past four and a half decades. Shockingly, it found that since 1960, the share of Federal spending that goes to children has dropped by more than 20 percent.

The current Administration, for its part, has done little to avert the approaching tsunami. As a recent *Washington Post* series on childhood obesity highlighted, President Bush has repeatedly attempted to eliminate or cut several prominent Federal efforts aimed at overweight children and teens, including:

- The elimination of funding for the Carol M. White Physical Education Program (PEP). In its fiscal year 2009 budget request to Congress, the Administration proposed to zero out this \$75 million program that helps schools and communities expand physical education offerings and purchase equipment.
- No new funding for the Centers for Disease Control and Prevention’s (CDC) Division of Nutrition, Physical Activity and Obesity. Grants offered through this CDC program, which currently are up and running in less than half the States, allow State health departments to design, implement, evaluate and disseminate effective interventions, including those which support policy changes to encourage access to healthy foods and venues to be active.
- No new funding for the Department of Defense (DOD) Fresh Fruit and Vegetable Program, which helps schools provide a wider variety of fresh fruit and vegetables to students through federally sponsored breakfast and lunch programs.

Not only has the Administration been meager in making investments in discretionary programs that could address childhood obesity, in longer-standing nutrition programs, change has been slow to come. The U.S. Department of Agriculture only recently modified the Women, Infants and Children (WIC) nutrition program to allow additional funds for low-income families to buy fresh fruits and produce, which are often more costly. In a bit of sad irony, traditional subsidies, which help low-income families purchase food staples like milk, eggs, and cheese, are contributing to our kids’ expanding waistlines. In fact, in some communities, nearly half of toddler and preschool WIC recipients are overweight or obese. And, as *The Post* points out, the U.S. Department of Agriculture’s (USDA) school breakfast and lunch programs continue to sell whole milk and sweetened flavored milk, instead of no-fat alternatives.

There are many interrelated factors that contribute to rapidly rising rates of obesity in children, chief among them poverty and food insecurity, which lead to lower food expenditures, limited fruit and vegetable consumption and poor diets.<sup>12</sup> In fact, a recent Food Trust report found that “people who live in lower-income areas without access to supermarkets appear to suffer from diet-related deaths at a rate higher than that experienced by the population as a whole.”<sup>13</sup> In another study, obesity rates were as high as 30 percent in the lowest income neighborhoods, compared to about 5 percent in the most affluent zip codes.<sup>14</sup> The relatively low cost of foods containing refined grains, added sugars and fats is also a key factor in the rising obesity rate.<sup>15</sup>

Other factors also contribute to the childhood obesity epidemic. For instance, in recent decades, our society has experienced an influx of fast foods, bigger portion sizes, and the convenience of vending machines. Today, nearly one-third of children ages 4 to 19 eat fast food every day—that translates to 6 extra pounds per year for every child. And, children are eating more junk food in larger than-ever portion

<sup>12</sup>Drewnowski, A. and Specter, S.E. (2004). Poverty and Obesity: The Role of Energy Density and Energy Costs. *American Journal of Clinical Nutrition*, Vol. 79, No. 1, 6–16.

<sup>13</sup>The Food Trust (2001). *The Need for More Supermarkets in Philadelphia*. Retrieved at: <http://www.thefoodtrust.org/pdf/supermar.pdf>.

<sup>14</sup>Drewnowski, A., Rehm, C.D., Solet, D. (2007). Disparities in Obesity Rates: Analysis by ZIP Code Area. *Social Science and Medicine*. 65(12):2458–63.

<sup>15</sup>Drewnowski, A. and Specter, S.E. (2004). Poverty and Obesity: The Role of Energy Density and Energy Costs. *American Journal of Clinical Nutrition*, Vol. 79, No. 1, 6–16.

sizes. During the late 1990s, portion sizes increased more than 60 times.<sup>16</sup> Children today are also over-exposed to junk food marketing. A recent Kaiser Family Foundation study found that food is the top product seen advertised by children—and 34 percent of all the food ads targeting children or teens are for candy and snacks.<sup>17</sup>

Unfortunately, the recent economic downturn has translated into rising food costs, and more Americans are turning to lower quality, frozen, bulk and processed foods for meals. And, as the economy worsens, America's poorest will be hit the hardest. As Dr. David Katz, a well-known authority on nutrition and the prevention of chronic disease notes, "there's real cause for worry, because the data we do have, in general, indicates that more nutritious foods tend to be higher priced. It's only going to compound that problem [when] the food prices rise."

The time for action is now. As the recent 2006 Institute of Medicine (IOM) report, *"Progress in Preventing Childhood Obesity: How Do We Measure Up?"* noted, "addressing the childhood obesity epidemic is a collective responsibility involving multiple stakeholders and different sectors—including the Federal Government, State and local governments, communities, schools, industry, media and families."<sup>18</sup> The Federal Government can—really it must—play a critical role in reversing this epidemic by providing leadership, coordinating efforts across agencies, and investing in research and sustained prevention and intervention strategies.

We believe Congress can take several critical steps *now* to help address this growing public health threat:

**(1) Improve Daily Physical Activity Requirements for All Students.** In recent years, schools have cut back on physical education and recess. Although children need 60 minutes of moderate to vigorous exercise daily, national surveillance data tells us that only 35.8 percent of high school students are meeting this measure.<sup>19</sup> As the Campaign to End Obesity's *Call to Action* report highlights, the reauthorization of No Child Left Behind (NCLB) provides an important opportunity to improve physical education and activity standards. Congress should consider the following:

- Support the 21st Century Community Learning Centers Act of 2007 (S.1557), sponsored by Senator Dodd, which would include the provision of physical fitness and wellness programs as allowable activities under 21st Century Community Learning Centers (CCLC);
- Amend Safe and Drug-Free Schools and Communities Act to allow for the promotion of Safe Routes to Schools (SRTS);
- Reauthorize the Carol M. White Physical Education Program and ensure it is adequately funded; and
- Provide incentives for schools that meet national standards for physical education.

We would also like to urge support for the PLAY Every Day Act (S.651), sponsored by Senators Harkin and Bingaman, which would help children, families, and communities achieve the national recommendation of 60 minutes of physical activity every day.

**(2) Increase Our Federal Investment in Prevention and Public Health Programs Targeting Childhood Obesity.** Congress should provide additional funding for the CDC's Division of Adolescent and School Health (DASH), which supports States in implementing Coordinated School Health Programs (CSHP). Currently, only 22 States and 1 tribal government are receiving grants, and overall funding for CSHP has followed a steady downward trend over the past 5 years.

In addition, I'd like to highlight several promising proposals:

- The Prevention (HeLP) America Act (S.1342/ H.R.2633), sponsored by Senator Harkin, would provide for: (1) healthy school nutrition environment incentive grants; (2) establish a Baby-Friendly Hospital Initiative; (3) provide incentives for States to ensure the safety and convenience of all users of a transportation system, including pedestrians and bicyclists, and also includes provisions of the PLAY Every Day Act, Healthy Workforce Act of 2007, MEAL Act, and Child Nutrition and School Lunch Protection Act.

<sup>16</sup> Anderson, P.M., and Butcher, K.F. (Spring 2006). *Childhood Obesity: Trends and Potential Causes*. Future of Children, Vol. 16, No. 1.

<sup>17</sup> Gantz, W., Schwartz, N., Angelini, J.R., and Rideout, V. (March 2007). *Food for Thought: Television Food Advertising to Children in the United States*, A Kaiser Family Foundation Report.

<sup>18</sup> Institute of Medicine of the National Academies. *Progress in Preventing Childhood Obesity: How Do We Measure Up?* Washington, DC: National Academies Press, 2007.

<sup>19</sup> 2005 Youth Risk Behavior Surveillance Results. Available at [www.cdc.gov/healthyyouth](http://www.cdc.gov/healthyyouth).

- The Healthy Places Act (S. 1067/ H.R. 398), sponsored by Senator Obama would among other provisions, require the Secretary of Health and Human Services to establish an interagency working group to discuss environmental health concerns, particularly concerns disproportionately affecting disadvantaged populations.

- In addition, we are pleased that Senator Bingaman will soon introduce comprehensive legislation that would effectively address the public health threats of overweight and obesity by requiring unprecedented collaboration and collective action across agencies, between private and public entities and industries, and involve individuals and communities in generating solutions and addressing the childhood obesity epidemic.

**(3) Enact a Strong Reauthorization of the State Children's Health Insurance Program (CHIP).** In order to be healthy, children need reliable access to routine health care. The research is clear that children without health coverage often lack the routine medical care that helps to prevent or address childhood obesity while in its early stages. Children in low-income working families—the very children who are eligible for coverage under SCHIP—are often those most at risk of becoming obese. We urge Congress to enact the strongest SCHIP reauthorization possible to improve access, coverage, and health outcomes for low-income children, with a particular focus on the 6 million children who are eligible but unenrolled in SCHIP or Medicaid.

We should also note that the SCHIP reauthorization language already passed by Congress on three occasions, included \$25 million for demonstration grants to develop a comprehensive and systematic model for reducing childhood obesity. This is a small investment but, even if it is only a starting point, one that we hope to see included in any reauthorization bill.

**(4) Ensure Coverage for Obesity-Related Services in SCHIP.** Because most private insurance plans do not provide explicit coverage for obesity-related services, these benefits may not be a part of benchmark plans from which stand-alone SCHIP coverage is developed. Basic anti-obesity benefits should be covered under SCHIP for its beneficiaries. Precedent exists for this coverage; Medicaid currently covers medical nutrition therapy for beneficiaries with diabetes or renal disease, but that benefit may not be adequate for children.

**(5) Provide Guidelines for Childhood Obesity Health-Care Related Treatment Under Medicaid's Early and Periodic Screening & Diagnostic Treatment (EPSDT) Benefit.** Children covered by Medicaid are nearly six times more likely to be treated for a diagnosis of obesity than children covered by private insurance.<sup>20</sup> The George Washington University School of Public Health and Health Services and Center for Health Services Research and Policy recently reviewed existing Medicaid benefit codes, and found that Medicaid, under its EPSDT benefit, can cover comprehensive, obesity-related pediatric health care services.<sup>21 22</sup> The researchers found that most State Medicaid manuals however, do not provide clear or adequate information about coverage levels and appropriate reimbursement codes for specific elements of care. Providers, therefore, remain uncertain about which services they can provide and if they can be reimbursed.

Given this lack of clarity, the Centers for Medicare & Medicaid Services (CMS) should take immediate action to:

- Disseminate information about the importance of childhood obesity risk to State Medicaid programs; and

- Augment existing CMS guidelines on EPSDT with special guidance on using managed care, integrated service delivery and disease-management techniques to develop comprehensive prevention programs for children at risk of obesity.

**(6) Improve Nutritional Standards for Competitive Foods and Beverages Served in Schools.** Nutrition in school lunches is “substandard,” and the only Federal regulation of the competitive food environment in schools is the restriction of “Foods of Minimal Nutritional Value” (FMNV) during meal times. This regulation is dated, and should be revised. The Child Promotion and School Lunch Protection

<sup>20</sup> Marder, W.D. & Chang, S. (2005). *Childhood Obesity: Costs, Treatment Patterns, Disparities in Care, and Prevalent Medical Conditions*. Thomson Medstat Research Brief. Retrieved at [http://www.medstat.com/pdfs/childhood\\_obesity.pdf](http://www.medstat.com/pdfs/childhood_obesity.pdf).

<sup>21</sup> Rosenbaum, S., Wilensky, S., Cox, M., and Wright, D.B. (July, 2005). *Reducing Obesity Risks During Childhood: The Role of Public and Private Health Insurance*. Retrieved at: <http://www.gwumc.edu/sphhs/departments/healthpolicy/chsrp/downloads/Obesity%20Report%20Final.pdf>.

<sup>22</sup> Wilensky, S., Whittington, R., Rosenbaum, S. (October, 2006). *Strategies for Improving Access to Comprehensive Obesity Prevention and Treatment Services for Medicaid-Enrolled Children*. Retrieved at <http://www.gwumc.edu/sphhs/departments/healthpolicy/chsrp/downloads/RWJ%20Medicaid%20Obesity%20Policy%20Brief.pdf>.



Act (S. 771/H.R. 1363), sponsored by Senator Harkin, would require the Secretary to update the definition of FMNV to comply with nutrition science, and would set nutrition standards for all foods served in schools campus-wide and across the entire time span a school is open to children.

As our recommendations highlight, childhood obesity is not just a health care issue—it is an education issue, a transportation issue, an agriculture issue, an economics issue, and a public health issue. Given the complexity of the problem, it is easy to see why responsibility for addressing it is passed from one agency to another. No one “owns this issue.” We must ensure that all Federal agencies with a role to play, including the Centers for Disease Control and Prevention, National Institutes of Health, Department of Agriculture, and Department of Transportation work together to address the childhood obesity epidemic.

It is time for the Federal Government to stand up, take notice, and take action to address the childhood obesity epidemic. While the health of our children is our paramount concern, the costs associated with obesity-related diseases are too staggering to ignore. We urge Congress to back the kind of proactive, coordinated and sustained response the childhood obesity epidemic warrants. In a glimmer of good news, the data and research also show that we can reverse the current trend and lower the incidence of a host of deadly diseases associated with obesity if we take action now.

Thank you for your leadership, and for the opportunity to provide this testimony. I welcome any questions you might have.

Senator DODD. Thank you very much. We have been joined by your former boss, Senator Bingaman.

He did a good job, Jeff.

Senator BINGAMAN. He did a good job.

Senator DODD. Yes. I will leave his testimony for you to read.

Let me turn to my colleagues just for some opening comments, if they would like to make one. I mentioned earlier before you arrived, Tom, what a leader you have been on this issue and, as Chairman of the Committee on Agriculture, fighting all the time to see to it that there has been a greater emphasis on the quality of nutrition and food that children eat, efforts in our schools, and the like. Just a long-time champion of this issue.

Do you have any opening comments?

#### STATEMENT OF SENATOR HARKIN

Senator HARKIN. Well, thank you, Mr. Chairman.

I would just say to my friend and my Chairman here that if you really want to find the person who has really been the leader on children's health and children's welfare for the last 20 years, you need no further than to look in the mirror.

Senator DODD. Well, thank you.

Senator HARKIN. Because Chris Dodd is well known all over this country for being the champion of children and families. The Family and Medical Leave Act being perhaps one of the biggest highlights of his political career, getting that passed for families all over America and for our children.

I just thank you very much for having this hearing and spearheading this. I know we are having another hearing next week, Mr. Chairman. I thank our witnesses for being here.

I just ask that my statement be made a part of the record—  
Senator DODD. Absolutely.

Senator HARKIN [continuing]. And would look forward to an interplay on questions and answers with the panel.

[The prepared statement of Senator Harkin follows:]

## PREPARED STATEMENT OF SENATOR HARKIN

Thank you, Chairman Dodd and Senator Alexander, for calling this very timely hearing, this afternoon, to examine the impact of the childhood obesity epidemic on the child's well-being and next week to discuss real solutions that can be done to address this crisis. I have been looking forward to this hearing on this topic and appreciate this opportunity.

Mr. Chairman, a number of leading health experts are now predicting that the generation of kids growing up today could be the first to live a shorter lifespan than their parents. One significant reason for this is the obesity epidemic.

As we will hear from the panelist, obesity takes a frightening toll on a person's health. It can lead to diabetes, heart disease, high blood pressure, cancer, and numerous other chronic diseases—all of them major causes of death. It is a shocking fact that more rates of childhood obesity has nearly tripled since 1980.

And the toll on children is especially disturbing. On the macro level, childhood obesity is a national public health crisis. But on the individual level . . . for each child afflicted with this condition . . . it is something else. It is a tragedy. A past Yale University study concluded that overweight children are stigmatized by their peers as early as age 3. They are subjected to teasing, rejection, and bullying, and are two to three times more likely to report suicidal thoughts as well as to suffer from high blood pressure and/or diabetes. The author of the study concluded: "The quality of life for kids who are obese is comparable to the quality of life of kids who have cancer."

There have been several studies by the Institute of Medicine, Trust for America's Health and other that have reported on childhood obesity, and have offered excellent blueprints for a comprehensive national response to the obesity epidemic, with a strong emphasis on wellness and prevention. They all consistently call to individuals and families, as well as to schools, employers, communities and the food industry. Most of all it is a clarion call to Congress. It is time for us to act.

I look forward to hearing from the witnesses today and next week to explore further areas where Congress should act. My broader ambition is to transform America into a genuine "wellness society" and to bring this public health discussion into the larger health reform debate. How do we recreate America as a "wellness society" . . . a society focused on physical activity, good nutrition and disease prevention—keeping people off pills and out of the hospital in the first place. And, as the Irish say, this isn't a private fight; anyone can join in. Schools, communities, Corporate America and government at every level—they all need to be part of the solution. And we need it now.

So again, I am grateful to the Chairman for calling this important and timely hearing.

Senator DODD. Lisa, any opening comments?

## STATEMENT OF SENATOR MURKOWSKI

Senator MURKOWSKI. I want to thank you as well, Mr. Chairman.

Listening to the panelists this afternoon, it has become frighteningly evident that we are talking about an epidemic in this Nation. When we think about how we treat other epidemics, we have a national strategy. We have a plan, and we are going to take control of whatever the epidemic may be.

We are not focused on obesity as a nation as we should be, and I am very fearful that once you lose that first generation to this epidemic, it is going to be so difficult to later address it. I applaud you for your leadership. I have enjoyed the opportunity to work with you, Senator Harkin, on the issues of nutrition.

I think we are starting to make some headway. We need to get parents, school administrators, teachers, families and policymakers engaged in this national epidemic because our children's health is at stake. As all of you have mentioned, the costs to us as a nation are staggering.

Senator DODD. Yes, I tell you, all the statistics can be numbing, I suppose, and it can end up glazing over your eyes if you let them. The two statistics that I kept on reading last night. In fact, I called the staff. I said this can't be right. You have the numbers wrong. This is a typo in the memo they wrote for me.

The fact that only 8 percent of our elementary schools and less than 6 percent of our middle schools and high schools have any requirement of physical activity. It just—to me, it is one thing to understand what happens when people go out and make bad choices about the food they eat. But the school, you would think, the value of just the learning ability of a child to know that physical exercise is so important for so many other reasons, not to mention the one that is before the subject matter of the committee today.

It is just hard to imagine that has happened. That many, that 92 percent of our elementary schools have no physical activity of their children.

Senator Bingaman.

#### STATEMENT OF SENATOR BINGAMAN

Senator BINGAMAN. Thanks very much for having the hearing, Mr. Chairman.

It is a very important issue, and I particularly wanted to be here with Bruce Lesley here. He did guide me on these very issues for many years working here in the Senate and did a great job here and is doing a great job now.

I am anxious, when we get to the question part, to explore what we can do with some of the specific Federal programs that are currently in place to try to deal with this issue—the SCHIP program, for example, Medicaid, some of these programs that ought to give us some leverage in reaching this group of young people that we are trying to help.

At any rate, thank you again for having the hearing.

Senator DODD. Thank you very much.

Let me start, if I can, Dr. Levi, with you. Just some questions that was noted in here. As I mentioned, the focus here will be on how to address the epidemic, but I wanted to ask you something about your testimony. You mentioned in your report—again, numbers just sort of jumped out at me last night reading your testimony in anticipation of the hearing today—that an investment of

\$10 per person per year in proven community-based programs could save the country more than \$16 billion annually within 5 years.

Let me ask you about four or five questions around this. Certainly what is community prevention? What types of interventions does this entail? Who would implement the interventions? Who would reap the benefits? I think that one may be more obvious. Can you give us some examples of community-based programs that have yielded some successful results to give us some idea of some models that are actually producing these kind of results?

Dr. LEVI. Sure, Senator.

Senator DODD. How did you get at these numbers? Where does that number come from?

Mr. LEVI. OK. This was a collaborative effort that Trust for America's Health engaged in with the Urban Institute, with economists there for a developed model. We worked in conjunction with the New York Academy of Medicine and Prevention Institute out in California as well. The goal here was really to look at how we can take on these problems before they become medicalized and see whether there actually is a value, an economic value to engaging in these programs and reducing healthcare costs.

The process that we went through was really to identify the most expensive chronic diseases in the United States, and a lot of them relate to obesity, and what kind of community-level interventions are they amenable to. We sort of did a crosswalk of those.

When you look at whether it is heart disease, diabetes, stroke, even some cancers, and arthritis, and you look at some of these very expensive conditions and you look at what sorts of interventions could actually prevent them or mitigate them, it ends up being physical activity, nutrition—how much we eat and what we eat—and also smoking cessation.

What we discovered in reviewing the literature was that there are a lot of very effective community-level programs. By community-level programs, we mean things outside of the clinic. We don't have to medicalize the solution to all of these problems. It can be everything from making a community more walkable, improved street lighting, creating sidewalks, promoting programs like Safe Routes to Schools that encourage kids to walk to schools, improving the quality of school lunches, doing menu labeling so that people know what they are about to buy in a restaurant, doing some social marketing campaigns to encourage people to exercise more and to eat better.

Usually it is a combination of several of these approaches that together make a community-level intervention. We have seen a number of very successful programs along those lines. Shape Up Somerville is one, where the community of Somerville, MA, came together and said here is the problem. Here are some of the things we can do, and they adopted a series of initiatives that targeted kids, targeted the physical environment, targeted adults, and together achieved some major changes.

The YMCA is doing some phenomenal work in a number of cities around the country in bringing—you know, we talk about needing a plan to address this problem, and we do need a plan. We need a national plan, not just a Federal plan, though, because every sec-

tor of society has a role to play. The beauty of what the YMCA is doing is it is convening local communities, business, transportation, schools, health departments, everyone who could possibly—families, community-based and faith-based organizations—everyone who could play a role and getting them focused on this problem.

I think that is what we mean by community-level prevention. What we did when we looked at the literature was we saw that these can have a dramatic impact on disease. In fact, the literature supported probably more than a 5 percent impact on things like diabetes and hypertension if you successfully implement these kinds of programs.

With just a 5 percent effect, within 5 years, you are going to see a return on investment of \$16 billion a year, and we looked at these programs and found that they were not expensive—\$6 to \$8 a year. We did the model based on \$10 per person per year so that we could be relatively conservative.

When you looked at it, it showed that if we provided more money for these kinds of programs, we would see a lot of savings. But who benefits? That is the challenge, the policy challenge that we face.

Public health invests in these kinds of community-level prevention initiatives, but it is the Medicare system, it is the Medicaid system, it is private payers who benefit. The policy challenge we face then is to do the crosswalk back and say how are we going to find the resources for these kinds of interventions? If we find them, how can we get those who benefit to contribute to the solution?

Senator DODD. Yes, and it occurs to me, too, I don't know what Somerville is, the demographics of Somerville. Is it upscale?

Mr. LEVI. It is not an upscale community at all.

Senator DODD. Making the connection at the local level for the value because they are local investments you are talking about?

Mr. LEVI. That is right.

Senator DODD. Streetlights, sidewalks, you have got to make that nexus, it seems to me, for that local board of select men or city council, whoever makes those decisions on those investments is going to have to make the case to the taxpayers there that there is payback.

Mr. LEVI. That is right.

Senator DODD. How do they do that?

Mr. LEVI. Well, this report will show, on a state-by-state, basis how much private payers will save, how much Medicaid will save. You know, the private payers are really the employers of the local community.

Senator DODD. Yes.

Mr. LEVI. They have a vested interest in doing this. A lot of private employers are engaging in wellness programs, but those only—

Senator DODD. Would insurance companies be interested? For instance, if a community does these things, then the rates for people who live in that community might come down?

Mr. LEVI. One would hope that they would. Certainly the costs would come down, and the question is how can we harness some of those savings to promote these kinds of activities.

Senator DODD. You mentioned the U.K. Tell us about the U.K.

Mr. LEVI. United Kingdom has done what Senator Murkowski suggested, which is to take a look at this problem and actually did their own modeling and saw the projections of—

Senator DODD. Their problem was a serious one, was it?

Mr. LEVI. Very serious. Not quite as bad as ours, but on a very similar trajectory. They are just a few years behind.

They made a decision that this required a national strategy, a national strategy that didn't just focus on medical intervention, though that certainly is part of it, and having appropriate medical counseling and access to appropriate services for people who are trying to control their weight and increase physical activity is important, but also literally remaking communities.

They have made a commitment to remaking communities to promote physical activity, to improve the quality of food in any kind of public facility, whether it is schools or hospitals, to change the norms in a society, and that is what we are really talking about.

Smoking cessation is probably a very good example of how we have, in a generation, dramatically changed people's attitudes and perceptions around smoking. Now, I don't want us to be stigmatizing people who are overweight or obese in the way, to some degree, we stigmatize people who smoke. But we can with social marketing, with education, with appropriate medical support, with changing the physical environment—that is what we do with smoking. We don't make it possible for people to smoke in certain places. If we can change the physical, social environment around issues of physical activity and eating, then we probably can see a similar change as we have with smoking.

Senator DODD. Thank you very much. I have a bunch more questions, but let me turn to my colleague.

Senator Murkowski.

Senator MURKOWSKI. I wish it were easier. I am sitting here listening to all of this and thinking, we do a pretty good job in terms of incentives if you are an adult working for a company. Many companies have a wellness plan—in many instances the company helps pay for your club membership so that you can go and work out. It is limited to working people—adults. So, we are basically leaving kids on their own.

There was a time when kids played. They were very physical, but now our children don't play the way they used to. I am convinced our children don't know how to play the way we did. I have a 15-year-old and a 17-year-old, and I make sure they know how to play. But they grew up in an outdoors environment which was relatively safe.

I didn't have to worry about monitoring them like we do now with our children living in the cities. I didn't worry that they were going to fall off the monkey bars and break a leg, and I was going to end up going after the city for not maintaining the park. It is a different world that our children are growing up in, and they really don't spend time learning and understanding the physical aspect of playing.

I worry about how we teach our children to accept exercise as something that is fun instead of something that you are forced to do. I absolutely support additional physical education within our schools. I, too, am stunned by the statistics.

When you have physically active kids sitting in a classroom environment hour after hour, if they have a good recess, where they are out racing around, they can come back and focus—their education can benefit from that physical exercise. We don't want our kids to associate physical exercise with something that you have to do because, as adults, it will make it that much more difficult.

Our problems are just overwhelming. I don't even know where to begin with a question. Keeping along the lines of physical education and the opportunities that we provide for our kids, I am told, when I go back to the State, that No Child Left Behind and the confines of that law are taking us away from the opportunity for more exercise in the school. We are focusing on the reading, writing, and arithmetic instead.

I am also finding that it is not so much that there is not enough time in the school day, but we are having a real challenge finding P.E. teachers. We are having a real challenge finding health teachers. Much of it stems from the funding component, that we are not putting the money there. Am I right? Am I wrong? What is your experience?

Dr. KAUFMAN. Well, I just wanted to mention that for the National Institutes of Health, I chair a study that is going on now called the Healthy Trial, and we are looking at a cohort of over 6,000 children in 42 middle schools in 7 cities across the country, and following them from sixth through eighth grade.

Half of the schools we have intervened on, and part of that intervention, there is a food service component. There is a curriculum component. There is a social marketing component. There is also a physical activity, physical education component.

When we got to these schools—so these schools all had to have at least 50 percent minority children and at least 50 percent of the children eligible for free lunch. You can imagine what some of these schools were actually like. There was a gym area that was minute. They put 80 kids in there with one teacher.

We have actually worked with the schools, found strategies. We have gotten a physical activity aide for the teacher. We couldn't actually hire more teachers, but we could hire an aide, a relatively low pay scale, most of them college kids who are looking for some outside work.

We have been able to take these kids from, when we started, 5 minutes of physical activity in a 45-minute P.E. class to 22 minutes of moderate to vigorous physical activity without a huge change in what actually has been happening. These children have just finished seventh grade. In another year, they will finish eighth grade.

There are hard outcomes, physical outcomes, medical outcomes that we are looking at in this cohort. If they have become healthier and less risk for diabetes and cardiovascular disease, we are hoping that this will serve as a model for how schools can fundamentally change comprehensively to enhance the health of our children.

Mr. LEVI. I think it is also important to point out, Senator, that this link to No Child Left Behind is, to some degree important, but in some respects specious in the sense that there is data now to show that kids who are more physically fit, more physically active will perform better academically.

Part of complying with No Child Left Behind in some respects almost demands greater attention to physical activity so that the kids will score better. It is an indirect approach, but it really can make a difference.

Now, ideally, if No Child Left Behind addressed physical activity, that probably would promote more attention as well. I also think, what Dr. Kaufman pointed out, that having P.E. alone is not sufficient. It is what happens in that P.E. class activity, and it doesn't even have to be a formal P.E. class, that you can introduce things into the school setting that encourage physical activity.

Dr. KAUFMAN. Yes, they like hula hoop. They like dancing. I mean, it is not necessarily everybody who is going to go for a competitive sport. There are a lot of activities that the children want to do. When you give them a menu and they make some of the decisions, then they are much more engaged.

Senator MURKOWSKI. When you think about what we are trying to do in the schools, which is to teach you to be a lifetime learner, to make your life better every day by learning something new, we also should be teaching kids about their bodies and how to be healthy for a lifetime.

It is not just talking about nutrition, although that is incredibly important, but the exercise component and how it makes you a better human being in the sense that everything is going well if your body is more physical and more fit.

Mr. Chairman, I am over my time. We could spend all afternoon here.

Senator DODD. Thank you very much.

Senator Harkin.

Senator HARKIN. I am like Senator Murkowski. It is hard to know where to begin on this.

Jenelle Krishnamoorthy on my staff, whom I know works with some of you, just gave me this. The Journal of the American Medical Association today came out with a report on moderate to vigorous physical activity from ages 9 to 15 years and showed how it decreased in those years. You know, when you are 9 years old, you play more and you are active. By the time you are 15, you are not doing anything.

Senator DODD. Right.

Senator HARKIN. I haven't read the whole thing. I was just looking at the data here, but it said that expert opinion and empirical studies suggest that children need a minimum of 60 minutes of moderate to vigorous physical activity per day, a standard proposed by the U.S. Department of Agriculture.

Sixty minutes. When I was a kid, I remember we had 15 minutes in the morning, a half hour at lunch, and 15 minutes in the afternoon recess. We had to go outside and play. Unless it was 20 below, maybe you stayed in at that point. That was about the only excuse—

Senator DODD. Which was about three quarters of the year.

[Laughter.]

Senator HARKIN. That is Alaska. That is Alaska.

How do we change the framework of the debate? I keep listening to candidates for President, no matter when. Everybody is running around, all the debate on healthcare in America is how do we pay



the bills? In essence, when you boil it all down, that is all we are talking about. How do we pay the bills? National health insurance, single payer, all that kind of stuff is how do we pay?

How do we change that framework to how do we prevent? How do we start changing the framework of that debate? Now part of the problem in the past has always been, well, you have to pay the bills because if you get into prevention, that just costs more money. It costs more money, and we can't take money out of the pot right now because there is not enough there to meet the needs of healthcare right now for low-income people.

It has been kind of a catch-22 situation. We know we have to do prevention, but we don't have the money to do it.

Now the report that you have just come out with, the Trust for America's Health that will be made public tomorrow, shows that the rate of return on that investment is about 1 for 1 in 1 year, and that is at a very low investment rate of \$10 per person. Think what it would be like if we invested \$100 per person or more. It is a very timely study that the Trust for America's Health is coming out with.

How do we change this framework? How do we start getting people, and our candidates who run for office on both sides of the aisle, to start thinking about how we change the framework of the debate?

Yes?

Senator DODD. Dr. Grey.

Ms. GREY. One of the major issues is we have spent most of the last 20 years blaming the people who are obese and say if you just wouldn't eat more, if you just would exercise more, then you wouldn't have this problem. Well, clearly, that hasn't worked.

It is really about changing the perception and thinking about very early on how you bring the right people to the table to change things. I will give you an example.

We know very clearly that children of pregnant women who do not lose their pregnancy weight are more likely to have children who are overweight or obese by the age of 2. The weight gain trajectory for those children will be like this compared to those children of those women who have not gained weight.

We pay lots of money to take care of acutely ill babies, but we pay no money to help women postpartum lose pregnancy weight. We have to reframe the debate about not just healthcare and not just individual responsibility, but how do we create opportunities for communities and others to participate in this?

One of the things we did in New Haven about 10 years ago—in collaboration with your good friend Senator Toni Harp—we created a coalition to fight childhood obesity. It was a grassroots effort in New Haven that didn't engage the healthcare providers. I was the only healthcare provider involved.

It was a group of parents, religious leaders, city officials, including the city planner, and others who said, "Oh, my gosh, this is a terrible problem. We really must do something about that." That coalition is the coalition that went to the schools and said, "get the sodas out of here." There is a law in the State of Connecticut that says these should not be available during the school day.

Well, we have the system where the schools can only pay their bills by collecting this information or paying for this soda. What they did was they put healthier choices in there, and guess what? They didn't lose any money.

Senator DODD. That is right.

Ms. GREY. We started a system called Walking Buses. This is one of the things they do in England that is really wonderful for inner-city kids. You have adults who aren't getting much activity, who aren't working, who take a group of 5 or 10 kids from the neighborhood and walk them to school, and we create environments that are safe that allow them to walk 10 blocks to school every day and walk 10 blocks back.

Those aren't huge changes, but it takes the community buying into this isn't just a self-responsibility problem. This is a societal problem.

Mr. LESLEY. Senator Harkin, I also think it is this issue of it is a national plan, as Dr. Levi talked about, but it is also kind of place-based policies. It is stuff that is reflected in all of the legislation you all work on in terms of if you look at the school, it isn't just the school lunch. It is the school lunch, but it is not just that.

It is the school nutrition program. It is the P.E. program. It is also the afterschool program and the community involvement in that, and it is things like figuring out ways for kids to walk to school. It is also access to fruits and vegetables, which it is your bill that really did get fresh fruits and vegetables into the schools.

There was a Washington Post series that talked about where in Fairfax County they got rid of the french fries in the schools, and 2 days later, it was the parents who had the revolt. We also need to get the community parents to understand why we are doing these kinds of things.

In my neighborhood, the elementary school just happens to be on the other side of a major street. I would bet that 90 percent of the parents in our neighborhood drive their kids to school, and it is just getting a crossing guard right there. That is all it would really take, and I would send my—but I drive my kids to school because of those kinds of things.

It is really the community thinking about the issue and talking to one another. I profess that I have been part of the problem. Senator Bingaman came up to me one day when I was working in the Senate and said, "The Ag bill is on the floor." I looked at him and said, "Yes, I am your health L.A. So?"

His point was, yes, and there is an obesity issue, and we worked with your office and all of your offices on kind of an amendment to the Ag bill to improve this issue. It is this transportation, healthcare, education, and health. It is very comprehensive, and people don't speak to one another about it.

Senator HARKIN. I guess I get frustrated because I watched all the debates of our candidates who are running for President. I watched all the debates—

[Laughter.]

Senator DODD. One of those unique Americans.

Senator HARKIN. Whether it is on the Democratic side or the Republican side, I watched those, too. Every question that would come up on healthcare was always about how are we going to get

health insurance to everyone? How are we going to cover everybody? How are we going to pay the bills?

Senator DODD. Yes.

Senator HARKIN. I kept waiting for one questioner to say, you know, we know that prevention works and we get the payback on it, what is your idea, so-and-so, about how we can change America to be a wellness society and prevent illness? No one is ever asking that question.

Therefore, our candidates start thinking, well, I know the question is going to come, and it is going to be on how we pay the bills. And so, I will get up on that. It is very frustrating.

I keep hoping that sometime the questioners of our presidential candidates will start grilling them on prevention and what it means and what community wellness means and how we get our communities to think about wellness programs and using examples. Like Portland, OR, who has done a great job as well as other cities and some schools, and what different schools are doing for activities.

Then just talking about our school systems and our food programs, next year we have the reauthorization, Chris, of the child nutrition bill—school lunch and school breakfast. Well, I would like to have our candidates talking about what changes do you think we ought to have in the school lunch program so that our kids have better food in schools. To me, this is a key part of our wellness in society and how we are going to prevent illness in the future.

But those questions don't get asked, and that is why I get kind of frustrated. That is why I ask you how do we change this paradigm?

I am thinking Senator Murkowski and I worked very hard together to get a change in the foods minimal nutritional values done. We didn't get it on the Farm bill, but the child nutrition bill is our key to get it done next year. We tried to get it on the Farm bill but wasn't successful.

What should we be thinking about in the child nutrition bill? What should we be thinking about and how should we change the school lunch and school breakfast programs?

Mr. LESLEY. Yes, I would also add that you also have opportunities next year with SCHIP coming back up for reauthorization in March, and in the final bill that all of you voted for in the Senate, it had a demonstration project on childhood obesity.

It is interesting, on the Medicare side, I worked on a bill for Senator Bingaman on medical nutrition therapy in Medicare, but it seems to me that the emphasis you are putting on this hearing today is we should be thinking about all our public programs and including the child nutrition programs, the Children's Health Insurance Program.

One of the things even we were looking at recently was the Maternal Child Health Program and the fact that in the Maternal Child Health Program there is no emphasis on this issue because it hasn't been reauthorized in a number of years.

One thing, to speak to the issue you raised, is the WIC program still serves whole milk and sweet and flavored milk. Why are we not providing the no fat alternatives and those kind of things. We hope to work with you on things like that next year.

Dr. KAUFMAN. In the reauthorization of the school lunch program, there is a lot of data, in a number of studies that I have looked at, of what some of those criteria should become. In this school study, we wanted to increase fiber. There is no real requirement for fiber. We put out first the high-fiber, high-grain buns, and the children had no idea what it was. First, we had to just put the one on the bottom and then the white one on the top. Then, eventually, they kind of got used to it. So it is not going to be an immediate shift.

We are still looking at trays in our schools. I mean, these very vulnerable schools, and the schools we are in, 50 percent of these 11-year-olds had a BMI greater than the 85th percentile. Actually, we did a pilot in the eighth grade of the schools—it is not the same cohort—but in those eighth grade students, we actually found 39 percent had already an abnormal blood sugar level.

These are incredibly vulnerable children, and they are still getting a Federal lunch program that is not weighted. The whole item, that whole tray for the week is kind of balanced out. Whatever they take, if it happens to be that 75 to 80 percent of the choices are the higher fat containing burrito than we would like to see, it is still acceptable. We had to get waivers around the number of calories in some of those lunches in some of our schools.

Senator HARKIN. Or what they do is they cut down on the fat, and then they up the sodium. They pour the salt on.

Dr. KAUFMAN. Right. Or they up the sugar.

Senator HARKIN. Or the sugar. Sugar, both.

Mr. LEVI. I think part of the message—and I think Dr. Kaufman could probably speak to this better, as more an expert than I, that part of the message that we need to communicate to folks is that relatively small changes can make a huge difference in terms of health outcomes. We don't have to suddenly have a nation of thin people in order to see dramatic changes in the quality of life and the length of life and how healthy people are.

In fact, one of the things in doing this report that I think was particularly surprising to me, even though I have read a lot of this material, was how very small weight loss, 8 to 10 pounds, can really dramatically reverse someone's course in diabetes.

Dr. KAUFMAN. Right. The diabetes prevention program, which was a massive NIH study, showed that in a very high-risk group of multiethnic throughout the age span of adults, a modest weight—7 to 10 percent weight loss, 30 minutes 5 times a week of just walking reduced the progression to diabetes in those who had pre-diabetes by almost 60 percent.

Now that is out in the community. There is a huge effort of translating this phenomenal NIH data and the components of the study out into community venues. Those kind of things don't belong inside the medical world. They belong inside the community and the workplace, where they are able to be done in a lot more effective and a lot more cost-savings way than inside a medical center.

Senator DODD. Let me ask you, we have an awful lot of young people here in the audience today, and I was thinking of going back to the smoking issue, seatbelts in cars. One of the reasons it worked wasn't because we just passed ordinances and laws, because actually children, in many cases, asked their parents to stop

smoking, insisted they put on the seatbelt in the car, became a great advocacy group.

The issues of weight and self-image, and Dr. Grey, you have done a lot of work in this area, the psychological effects of obesity. I couldn't help but think as well about the problem. I was with a good friend of mine today, and he knew I was going to conduct this hearing and has a child that is suffering from anorexia, the sort of antithesis of the issue, but, in effect, a manifestation of the same problem in some ways, self-image.

All of the marketing techniques today, I mean, you open any popular magazine or what show it is, there is such a glorification in a way of a body type and style that I think it is difficult just in the sense of being a child and the kind of peer pressures associated with this that create its own dynamic. I regret not doing this, which I am tempted to do, I have never done this before in 27 years here. If any of these younger people in this audience have any ideas about this, you could become a witness in a congressional hearing if you would like to come up.

[Laughter.]

If you have any thoughts about this. Because, really, the audience in a way can do so much. We can do a lot of these things, and Tom has been terrific and Lisa on these issues. I was going to ask Tom—I have never done this either. I have never asked a colleague a question during a hearing. Normally, we ask the witnesses. The Food Stamp Program, I just have given a lot of thought to this and haven't come up with an answer for it because, obviously, we associate more expensive foods are more nutritious or the correlation is.

Can't we incentivize that Food Stamp Program in some way, where we reward a family that will, in a sense, take those food stamps to buy more nutritious food? There ought to be a reward associated or some way to encourage, to incentivize people moving in that direction.

I wonder, Doctor, if you could——

Senator HARKIN. Mr. Chairman, could I respond to that?

Senator DODD. Certainly, yes.

Senator HARKIN. In the Farm bill we just passed, I put a provision in there that—and we are going to test this out. It kind of comes from Michael Pollan's book. He was wondering why so many low-income people are so obese and why they have diabetes. He began looking into stores and finding out that low-income people use their food stamps to buy fast starches and sugars. They don't buy fruits and vegetables because they are the highest prices.

Fast starches and sugars are the highest subsidized things that we do in this country. I got to thinking about that, and I thought, you know, we don't have food stamps anymore. We have an EBT card, electronic benefit transfer card, and it has a little black stripe on the back like your credit card.

When you go through the counter, they swipe that card, and it deducts from your food stamp allotment whatever you bought, and then you know what you have left. You can encode on that stripe a lot of other things. For example, you can't buy beer or wine or cigarettes or nonfood items with the EBT card.

If you go through and they have checked all the bar codes and stuff, and then you hand them the EBT card and they swipe it, and you have bought a six-pack of beer, that will come up and say that is not allowed. Or if you buy nonfood items, that is not allowed. They have to deduct that, and you have to pay cash for it. It can't come off of your food stamps.

I got the idea that maybe what we could do is encode that for fruits and vegetables. We have in the Farm bill money to set up a study on providing EBT cards to people so that if they go in and they see fresh fruit, for example, or produce. Let us say it is \$4, that is \$4 per pound or something. They know that if they buy that, it is only going to cost them \$2.

And human nature being what it is, we all love a sale. We always like to buy things that are cheaper than what is marked on the thing. If I use my EBT card and I go to buy potato chips and it is \$4, and I know it is still going to be \$4, but if I buy this and it is not \$4, it is going to be \$2, maybe I will start buying it.

We have this study that has just started. The Department of Agriculture is trying to get the rules and regs for it. Hopefully, this will show that if you give a benefit to people on that EBT card, they will start buying fresh fruits and vegetables, hopefully.

Senator DODD. Incentivizing.

Senator HARKIN. Incentivizing. That is what we are trying to do. I just wanted you to know that has started, and hopefully, by next year, we will have a little bit of data on this, I hope.

Senator DODD. Tell us, Dr. Grey, about the stigma and the psychological impacts. You have done a lot of work in this area. Is there a correlation between adults and children? I get the feeling from what you just said that it is obviously more pronounced among younger people than it is with adults that are—

Ms. GREY. Well, it seems worse, I think, in children because depression is a serious problem amongst youth. While the elderly are the most likely to commit suicide, teenagers are the second most likely. When you put together kids who have health problems, depression, and difficult life circumstances, it is a witch's brew.

Senator DODD. More associated with girls than boys?

Ms. GREY. Both. It is actually slightly higher—actually, girls make more attempts, but boys are more likely to be successful. Part of the reason for that is boys are likely to use more violent approaches. They have higher access to guns and may shoot themselves, whereas a girl may take an overdose of aspirin and get sick but not complete a suicide.

The issues around self-esteem and all of those things are highly related to the communities in which people live, and one of the issues that we face now that in many inner-city communities, where we have done most of our work, we are talking about kids where being obese is normal. There are whole issues about if a kid wants to make a change and starts to lose weight, then they get teased for being different because they are losing weight.

This whole issue, from my point of view, is really about how do we normalize what is healthy, not what is skinny? In the African-American community in which I work, the average teenager is overweight. When we start talking to them about weight loss, they

think we want them to look like Halle Berry. Well, they are not going to look like Halle Berry.

If they can lose 5 percent of their body weight or at least stop gaining weight for a while, while they kind of grow into this, then they feel much better about themselves. The fact is a lot of these kids can't be physically active because they are huge. These kids get mixed messages, boys in particular.

We were talking earlier about kids playing football. In the junior high school, we are telling them, "You are unhealthy." You weigh 280 pounds, and the football coach is saying, "Keep packing on those pounds. You are a really good lineman on my football team." We have to stop the double message. We have to be talking about what is healthy from a mental and physical point of view and stop normalizing the fact that it is OK to be that heavy.

Senator DODD. Well, I am very interested as well in talking with you, Dr. Kaufman, about the link between obesity and diabetes. What proportion of people with obesity also have diabetes, and what proportion of people with diabetes is obese or overweight?

Dr. KAUFMAN. Well, it is probably easiest with answering the second question. Those with type 2 diabetes, 90 percent are overweight or obese. In our pediatric group, it is 100 percent of these children.

There is another trial that I chair for the NIH called the Today Trial—Margaret has been involved with it—which is looking at trying to really understand, characterize, and learn best treatment modalities from children who have already contracted type 2 diabetes. We have 15 sites across the country, and these children are—we had to buy new scales. I mean, a 350-pound child is almost close to our mean.

Senator DODD. If a child has pre-diabetes, what is the likelihood that child will develop type 2?

Dr. KAUFMAN. Well, we are hoping to answer that question more scientifically. For adults, we know that once you have pre-diabetes, there is about a 10 percent conversion per year. We know there is 54 million Americans right now with pre-diabetes. So you can start to imagine that math.

We are watching, not only this last year, an increase to this 24 million, but at a higher rate of increase than had been seen before. One point three million more were added last year.

We are still trying to sort out through a number of CDC and NIH efforts to characterize really what is happening in children, but we know that these children when they come to us, they are all overweight and obese. They come from families in which there is a very high prevalent rate of diabetes already. Most of the adults in their lives are failing in managing their disease.

They are socioeconomically having a lot of issues attaining healthy lifestyle habits that we are working with them on. Of course, we are now providing healthcare, but a number of the children were having difficulty in access to healthcare.

Senator DODD. I am asking you a couple of these statistical questions, and I ask you to just go back and do this.

Dr. KAUFMAN. Sure.

Senator DODD. Another one I had for you, I just was stunned and you referred to the healthy middle school study.

Dr. KAUFMAN. Right.

Senator DODD. Thirty-nine percent of minority eighth graders were found to have pre-diabetes in your report. The question I have is how does this compare to the rate of diabetes in minority adults, No. 1, and what conclusions do you draw from the large disparity between the rate of pre-diabetes in the children you studied and the rate of diabetes in adult minorities?

Dr. KAUFMAN. Well, we are applying adult criteria to these children. We are not sure they are the right criteria.

Senator DODD. Yes.

Dr. KAUFMAN. These children actually have a blood sugar level clustering right at the cut point. We are not sure whether part of that may be due to when you are overweight and you are going through puberty—puberty is a time of insulin-changing activity in your body, what we call insulin resistance. You know, puberty is a time of resistance, but insulin is one of the things that children are resistant to.

We don't know whether as they come back out of puberty that might normalize at a lower rate so that they don't have pre-diabetes anymore. I can't answer that question for you scientifically, but we will have the answers over time.

We know that it is kind of a bad sign that you can't handle the stress of puberty without having too high a blood sugar. If they do come back down to a more normal range, they are likely—unless we do something about their weight and their health status—likely then to emerge again as adults with pre-diabetes and then diabetes.

Senator DODD. Yes. I will ask you this and then turn to Lisa again.

I talked about this as an epidemic, and I use the word “emergency” carefully. We talk about—we use that word, we throw it around quite frequently to describe almost everything. It strikes me, looking at these numbers and looking at the studies that you have already done, even with the conclusions that you have drawn early on, that we are clearly in a medical emergency with this issue that is going to become exponentially larger.

The point I think that Lisa made about—I think some of you did as well—that you let this generation slip into the next generation, because there is a direct correlation between obese parents and the likelihood of obesity among their children. So you start exponentially expanding that constituency. Then this problem becomes exponentially larger very quickly.

Dr. KAUFMAN. Right.

Senator DODD. Am I exaggerating this conclusion?

Dr. KAUFMAN. Not at all. I mean, from the psychological to the medical reasons as children, during childhood, these children are very, very fragile from a medical standpoint. Then their long-term health is in tremendous question.

There is no doubt that unless we do something and they continue to track with overweight and obesity, they will be the cohort of adults with cardiovascular disease, diabetes, cancer, and a whole host of other medical conditions.

Senator DODD. Well, it is telling me so much that by looking at this, these are the kinds of problems you associate with adults. I



mean, having children taking—I guess it is good maybe. Having cholesterol problems, having strokes, heart problems, these are all things we would normally just associate with aging, not with youth at all.

Have you done anything, have we talked to the military at all about this? Are they showing any signs of problems in recruiting or people coming into the military?

Dr. KAUFMAN. We are partly funded in some ways from some of the military grants because there is so much diabetes developing in their young adult cohort. Once they have developed diabetes, they have to then care for them. They are looking at ways to instill diabetes prevention programs inside the military.

Mr. LEVI. In fact, in terms of recruiting, it is a significant issue, and I mentioned this in my written testimony. In 1993, 25.6 percent of 18-year-old volunteers were overweight or obese. By 2006, that grew to 34 percent. Each year, between 3,000 and 5,000 service members are forced to leave the military because they are overweight. It is a huge problem, both in our being able to recruit people and also then the cost of retraining to replace people who are discharged.

There is a certain irony, I think, in where we are today as opposed to 1965 when the Medicaid legislation was passed, and one of the things that compelled President Johnson to push for Medicaid was the difficulty—and this was during the period of the draft—that so many recruits were underweight and unhealthy, and today we have the reverse problem. It is a reverse national security problem.

I think it also points to the comments that Bruce Lesley was talking about in terms of if you look at the populations who are probably volunteering for the military, were probably at some point touched by Medicaid in their lives, and maybe we also need to be looking at how Medicaid can address this issue so that when they do become of military age, they can successfully volunteer.

Senator DODD. What I am struck by in your testimony is that, one, the magnitude of the problem, but the nonmedical responses to this make this preventable.

Mr. LEVI. That is right.

Senator DODD. We could really make a huge difference.

Mr. LEVI. That is right.

Senator DODD. That is the positive and the silver lining in all of this, to identify the problem. To recognize that we can do something about this now that we know what to do.

I have been dealing a lot with autism and done a lot of work at Yale as well on autism. One of the confounding problems, we don't really know what causes it. We don't even know how to successfully treat it. I mean, it is really in a spectrum what can happen.

Here, we know what causes it. We know how to treat it. We know what we ought to be doing about it. Unlike other areas, such as autism, this is one we can handle.

Lisa, any additional questions?

Senator MURKOWSKI. Just one final question to you. I am very active on the Energy Committee, and of course, what everybody in this country is talking about right now is the price of energy and

what they are paying at the pump, and what their family is paying out of their pocketbook for their energy consumption.

It would appear that in this country when you hit about \$4 at the pump, the American public started demanding action. Here in Congress, we are trying to figure out how we deliver on that. I am of the belief that it has to be a combination of increased production and increased renewables and less consumption, but this is a HELP hearing, and not an energy hearing.

My point is, we have to identify what that tipping point is in this country when it comes to energy and how you have a public that is now demanding action. On the issue of obesity, are we at the tipping point yet?

Do you think that Americans understand? Do you think that people understand—the statistics which you have all cited, which are phenomenal—that this is not just something that is happening in their town, but it is happening around the country?

Do you think that people understand the connection between not only the consequences that you all have described—whether it is depression or other mental health issues—and then the cost to society and the medical costs? Do we sufficiently understand, as a nation, enough to push us over the edge so that we can have some definitive action? Are we there?

Mr. LESLEY. I would say that the polling on this kind of issue is pretty interesting in that there is this national poll on children's health that shows that adults definitely identify obesity as the top issue facing children. However, I don't think that they get the connection in terms of what is it that we need to do.

I think that it is kind of a problem with children's issues generally of people care, but they don't then see the linkages to the public policy. If you ask people specifically, do you care about children's issues at the Federal level? They poll in the 80, 90 percent range. Then if you ask them is it a priority in what you are going to vote for, they don't list it. Then if you ask them in a focus group, so you don't care about these issues? They are like, of course, I do.

There definitely needs to be a public education campaign, kind of like what we did around seatbelts and smoking and those kinds of issues, to really educate the public about—people get the issue. It is not an education of just stating that obesity is a bad thing, but it is what are all the things we need to do together as part of a national plan and commitment to addressing this issue and making people talk to one another? I think that is really one of the things missing.

Senator MURKOWSKI. But we are not there yet.

Dr. Levi, you seem to indicate that we are there?

Mr. LEVI. Well, I think we are part of the way there. We just actually did some polling in conjunction with the release of our annual obesity report, which will be coming out shortly. We found that 63 percent of Americans now do believe the diseases related to obesity are a very important issue for government to focus on.

I think translating from that to a specific agenda is the challenge, and I think, particularly with health problems, we have tended to want to look for magic bullets and for a pill or a vaccine. There isn't going to be a pill or a vaccine for obesity—at least not yet—and in the meantime, there is so much we can do.

These behavioral changes are not easy and require really a lot of this norm changing that we have been talking about, the destigmatizing of changing what people value. That is going to take leadership from all of you, and it is going to take leadership from who is in the White House, and it is going to take leadership at the community level as well from every level.

Senator MURKOWSKI. I think also it is going to take a recognition that it is everyone's problem. None of you sitting here would be considered obese. I don't know what your background is, but is it your problem? Yes. It is everyone's problem.

We are going to have to accept that we are all in this together. It is not the family next door that has an issue and they need to solve it on their own. We need to be changing our systems, changing the way that we think about diet and exercise and healthy lifestyles.

In Alaska and our Native organizations, many of which have been pushing wellness initiatives to help deal with sobriety and drug abuse, and also the whole concept of wellness. As we talk about healthcare reform, as we talk about those ways that we can lower our healthcare costs—prevention, as Senator Harkin has mentioned, is just absolutely key. It is this greater concept of wellness, wellness of body, wellness of mind and attitude, and we are all part of the solution. It is not our next-door neighbor's problem.

Thank you for your contributions. I appreciate it.

Senator DODD. I wonder if I made a mistake earlier in something I was suggesting. I was talking about eating disorders, and is bulimia and obesity—I have doctors here in front of me. What is the distinction in a sense, I mean?

Dr. KAUFMAN. Well, in looking at weight issues, the very low weight, particularly woman, young adult woman, older teenager is a very distinct subset of the population who really are at risk for that, and they are quite distinct from the population who are at risk for obesity and obesity-related diseases.

We have done a lot of evaluations in our community programs in Los Angeles, as well as in some of our school-based problems, to try to find out—because one of the big fears was would we be inducing anorexia now, with low weight and the medical issues associated with that, in these children as we were delivering school-based health programs. We are talking about health, talking about healthy behaviors.

We have not seen any signal that that has changed at all. We don't think this is a risk for inducing low-weight medical issues.

Senator DODD. Do you agree with that, Dr. Grey?

Ms. GREY. I do.

Senator DODD. Yes, I said earlier I am so impressed that we have so many younger people, Lisa, here in the audience that have come here today. I have never done this before.

Would any of you young people have any ideas you would like to share with us on the subject matter? You have heard these official experts. I have never—in 27 years, I have never asked the audience a question at a congressional hearing.

Yes, ma'am?

AUDIENCE MEMBER. I just want to say, I am a Ph.D. candidate at the Johns Hopkins Bloomberg School of Public Health in international health and nutrition, and I am also an intern here at the National [Off Mike]. I think it is a dual issue of changing our food system here in the United States and around the world and also looking at how we can change our messages.

We are talking about individual behavior, but it is not just limited to behavior because if you look at those who are most at risk for overweight and obesity, it is children and adults with lower income status. You can't just ask the one person at their convenience and their time to join the gym or to eat healthier because it really is not possible. I think we need to really focus at a national level on environmental change as well.

Senator DODD. Some of the things Senator Harkin talked about in terms of how we incentivize dietary changes and so forth and making available foods that are far healthier and the like, I think, is what you are driving at on this issue.

Well, thank you. Anybody else in these young people in the audience?

Yes, ma'am? What is your name? Tell me where you are from.

AUDIENCE MEMBER. Hi, I am [Off Mike] resident at the University of Maryland in Baltimore. I think that the issue is multifactorial. We have families coming in that the parents are overweight, that the grandmother is overweight. Sometimes they don't see it as "we are overweight." They just see it as "we are all just big people." The family is looking at themselves like that, and they do not see it as an issue.

When I show them the growth charts for the child to show that their child is above the 97th percentile and that it is an issue, when I try to tell them, well, let us think of different things you can do for your child. Just let us take out this little factor not just for the child, but for the whole household. Let us stop eating fast food two or three times a week. Let us have it once a week and then bring it down to once a month as more of a treat. Like, you did a good job at school today so this might be your treat.

The fact that kids don't have physical education in school anymore, some kids also don't even get recess. Also another factor that is an issue is when I ask the parents, "Well, do you feel safe in your household?" They feel safe inside the house, but they don't feel safe outside. Therefore, their kids don't get the chance to go outside to play. They can't go outside to play. The parents' thinking might be, well, you know what? I would rather my kid be big than worry about whether they are going to get shot at when they are outside playing.

The issue isn't just something of do we make sure that we have appropriate foods in the school, but we need to make sure that we also have physical activity for these kids, that they can feel safe in their local environment, but also that the parents understand that this is a problem. It isn't normal for your child to be this size, to be 50 pounds when you are 2 years old. They need to understand this is an issue that is not just an issue for the child, but an issue for the whole family, and the whole family needs to be onboard.

Because if we tell them, "Well, this child needs to work on losing weight," I don't just say it is only for the child. The whole family

has to make a lifestyle change. You take all of the cookies out of the household, and no one is eating cookies at home. And you take all of the soda out of the household. If you want soda, then it needs to be diet soda because there is no sugar in the diet soda.

I think it is not just looking at one particular issue, but it is looking at everything within the household, within the community, within the environment.

Senator DODD. I think the next hearing we are going to invite both of you to be witnesses.

[Laughter.]

It is very good, excellent. It is encouraging to know you are thinking this way. We have people out there working this.

Anybody else on a point they wanted to raise at all? Yes, ma'am, there is someone I can only see your hand. Yes?

AUDIENCE MEMBER. Hi. My name is [Off Mike]. I am from Glenwood, IA. My idea—

Senator DODD. Senator Harkin, did he know you were here?

[Laughter.]

AUDIENCE MEMBER. I don't know if he knew I was here, but my idea would be to maybe increase the variety of physical activities in schools. I am also a dancer. I would say using dance as an option or just something else, so that if the kid isn't picked for kickball there are other avenues for physical activity. Making different kinds of programs more available, so the classes that they take are effective.

Senator DODD. That is a good idea. I have a 3-year-old and a 6-year-old daughter, and they love to dance.

AUDIENCE MEMBER. That is great, yes. It is good exercise.

Senator DODD. I think it is exercise. They make me do it with them.

[Laughter.]

With my knee replacement doing Irish step dancing. What a sight to behold, I will tell you.

Well, this is very encouraging. It is very good.

Anybody else in the audience want to say something? Hands? Yes, oh, we have a lot of hands now.

Yes, I will start over here. Yes?

Ms. HOFFMAN. Hi, I am Vanessa Hoffman. I just completed training to be a registered dietician.

Senator DODD. Where are you from?

Ms. HOFFMAN. I am from Washington, DC. I wanted to commend Bruce Lesley's work in promoting medical nutrition therapy as a way to provide people with reimbursable ways to meet with registered dietitians, to talk with someone who is an expert about nutrition, answer their questions.

Also improving resources, like Brian Wansink has been doing at the Center for Nutrition Policy and Promotion in terms of MyPyramid Tracker. People can go online for free and enter all the foods they have eaten and get feedback on how to improve their diet.

Senator DODD. That is terrific. That is great.

On this side of the room someone had a point they wanted to make? Yes?

AUDIENCE MEMBER. Yes, we are both in high school, and it is really great to see so many of our generation here. That is really great to see.

Senator DODD. That is why I thought I ought to ask you since you are in the room.

AUDIENCE MEMBER. Yes, and it is really great to see in action. I think all of your plans are national in scope but local in application, and it is going to take a lot of local and, like you were saying, community-based action. It is good to see that the attention is going to create change, and it is great to see that starting, you know?

Senator DODD. Yes.

AUDIENCE MEMBER. Also, I would have to say that I think an interesting statistic would be if you look at the percentage of children in America with obesity, and actually, I think that would be very interesting if you figure out what percentage of those children have obese parents. Because I believe that you are a product of your environment. Sometimes that is not the case, but a lot of times that is true.

Unless you have a conducive environment and parents that can support you and can instruct you, then you are not going to be—as a child, you look up to your parents. You do what—your parents are the producers. They provide for you, and we just consume. Like, if the parents aren't providing a healthy environment, then the children aren't living in a healthy environment. Therefore, we have this Nation of obese children because it all starts with the parents.

I think that education programs should be geared first toward—more toward the parents. That is where it all starts.

Senator DODD. The families. That is what the young lady from Maryland was saying back here, too.

What else? We have a couple more here. Yes, way in the back? Yes, go ahead. By the way, we have a microphone out here. We are going to give you a microphone.

AUDIENCE MEMBER. Mike [Off Mike] from Fargo, ND.

Senator DODD. You don't need a microphone. Go ahead.

AUDIENCE MEMBER. OK. This might just be a very small thing, and you were talking about before, Senator, you were talking about the energy crisis and you were talking about infrastructure with sidewalks and everything. I am an avid cyclist, so I love bicycling around town. DC is a great place to bike.

If you could somehow create a Federal mandate, I know lots of roads are done on a State or local level, but sort of like speed limits, where you have to have this or you obviously don't get the funding. If you could say, you are not going to get this extra funding if you don't put bike lanes on the residential roads. Bike lanes are very, very helpful. They protect us a lot.

I have ridden—I was in Florida—Tampa, FL, this past year. It was one of the worst places to bike in the country, and it was really, really dangerous, and I almost got run over a couple of times. You could solve two crises in one. Bike sales are going up. You could get people exercising, and you also lower people's cars' emissions.

Senator DODD. We have actually done that on some legislation. There has been—I know in my own State, I have done that in a number of instances. I actually got funding for bike paths in conjunction with highway programs. We actually have been doing some of it, probably do a lot more of it based on that suggestion.

AUDIENCE MEMBER. Yes, I thank you.

Senator DODD. Anyone else back there? I have opened up the door here, haven't I?

[Laughter.]

Anybody from Connecticut?

AUDIENCE MEMBER. Me.

Senator DODD. Nothing like a little local politics. Are you from Connecticut?

AUDIENCE MEMBER. I go to school at Yale.

Senator DODD. That is good. We will try. Do you vote in Connecticut?

[Laughter.]

I am only teasing. That is not serious.

Mr. TALBOTT. My name is David Talbott [Off Mike] in my final year at Yale. I am, by no means, an expert on the issue, but one of the things that I did at school was I started up a program called Student Soccer Outreach. We go around to a lot of the local middle schools and teach them. Not only do we do mentoring, but we also do soccer and teach them what it means to be a fit and healthy younger adolescent.

I guess, I have been interning for the HELP Committee.

[Laughter.]

I was reading some of the testimony, and I noticed that a lot of the talk today was focusing on prevention. I believe it was in Mr. Lesley's testimony that he mentioned that 95 percent of the money we are spending right now is on treatment rather than prevention. It seems like that money really isn't being effectively used.

I am just not really making a statement. I am asking a question. Is there any way to make that 95 percent more efficient because it seems that while the prevention is where we are looking to go to the future, the current path has really been on treatment and that it is really not being effectively used.

Senator DODD. Bruce, do you have a comment on that?

Mr. LESLEY. No, I mean, other than to say I think that that is right on, in that we really do need to make a more concerted effort on the prevention side, and it is not just even government spending. It is private spending.

It is also, to give kind of a shout-out to programs such as the one you worked in. It is also the Boys and Girls Clubs and the YMCAs of the world who are really providing another place, a safe place for children to engage in activities. There is also Congress, who does support a lot of those activities as well. It is very multifaceted.

Senator MURKOWSKI. Mr. Chairman, if I can just jump in here. Your mention of being a soccer club that reaches out to the younger kids—going back to my point earlier about kids not being able to play as much anymore, I think we overlook an incredible teaching resource when we don't allow our young people to be mentors.

The eighth graders, I bet, look up to you all as heroes. To be able to play like you is something that makes them work hard and have

fun at the same time. I am a huge supporter of what Boys and Girls Clubs do, and we keep trying to get more and more in the State along with the YMCA program. I think we have some real opportunities as we look to the local level to see how we can do more without necessarily huge increases in funding.

We have a lot of volunteer opportunities if we use our young people, who have that level of energy and can be great role models for our kids. Thank you for what you are doing.

Thank you, Mr. Chairman, for doing this. I am going to have to excuse myself.

Senator DODD. No, I understand that. I apologize. As I said, 27 years, I have never done this before. Take a couple more, a couple more comments. Can we get the microphone so you can be heard?

Thank you, Lisa.

Yes, go ahead. I will have to try and pick now. We have hands all over.

Ms. CHAMBERS. Hi, I am Cassie Chambers, also a Yale student, working on being able to vote in Connecticut.

I think one of the things that kind of gets glossed over a lot is the importance of allowing people to own their own epidemic. I think it is important to allow people—when you are talking about such a comprehensive lifestyle change—to be individually empowered to make those decisions for themselves.

I think looking at programs like providing grants to local schools, providing grants to parks and recreation centers, to work on a small scale, I think that is really important. I think programs in local schools, where local schools get evaluated on how they are doing on nutrition, tax incentives to give people money back if they make the choice to buy fresh produce or to invest in a gym membership or things like that.

I think that empowering people on an individual level to make choices is really, really important.

Senator DODD. That is very good, and I agree. I think that is one way to describe it, too, to empower people themselves who are in that situation.

Yes, what else? There was someone else back over there, too? Go ahead.

Ms. LEWIS. Hi, I am Dana Lewis from Huntsville, AL, and the University of Alabama, voting in Alabama.

I think it is also important to realize that education can also be a barrier. It is one thing to lower the price or offer an incentive for somebody to buy fresh produce, vegetables, and things like that, but it is another thing to show people you don't have to clear your plate. It is important to know about the correct portion sizes.

You don't need to always clear your plate. You need to know the nutrition labels, be able to read exactly how many carbohydrates or calories are in that meal, and just because your restaurant serves you this nice big plate, you don't need to clear it if it is triple the amount of calories or carbohydrates that you need.

It is important to educate schoolchildren and adults as well to know the correct portion sizes and how to read nutrition labels as well.

Senator DODD. Yes, that is very good. Excellent.



What else? We have some more over here, and then we will go over here.

Ms. SINGH. Hi. I am Ranu Singh. I am from Massachusetts, actually.

I just wanted to make the point of it is really—I think the one group that can really make a difference here is children themselves. We were saying earlier that they can lead the way. Older children can lead the way for younger children.

I also feel that if they have enough of a sense to know, if they are taught this either through like—I don't know—Sesame Street, they were saying now that the Cookie Monster is now the Veggie Monster, or something of the sort. Just silly things like that—

Senator DODD. Don't mess around with the Cookie Monster. I love the Cookie Monster.

[Laughter.]

Let us not get carried away here now.

Ms. SINGH. I mean, my point there is he is a monster so he can eat cookies. That is the point.

Senator DODD. Yes, right.

Ms. SINGH. I just feel that if they can be taught to believe that, if they can get that kind of inclination, they are going to drive it themselves. I feel like that is something that they will definitely do. They can change their parents, like you were saying earlier with the seatbelts, with not smoking. The children are the ones that will question that.

Senator DODD. Huge influence.

Ms. SINGH. That is a very big point.

Senator DODD. A question on this side of the room. I want to go back and forth. Can you get a microphone over to this side? Maybe you can walk toward him a little bit? We have a microphone for you.

Ms. JOHNSON. Hi, my name is Laura Johnson. I am from Minnetonka, MN, College of St. Benedict, St. John's University.

During the summer, I am a children's camp counselor for the YMCA, and I think one of the really important issues is encouraging children to get physical activity. Like what you were saying, I think that peer-to-peer encouragement is very important because what I have observed through my work is that the overweight and obese children are often the ones who are afraid to participate in physical activity because they are afraid that they are going to be the slow ones and the left-out ones. They really, really, really benefit from having positive encouragement.

They are also the children who don't go swimming because they don't want to wear their swimsuits. I just think that among the peers and if you educate younger children to encourage their other overweight friends to participate in activities, that would greatly help.

Senator DODD. Yes, no question. Good for you for doing what you are doing.

Come back over. I only have one microphone. Let us work our back way down. We will come down here and then come down this way. Yes? I could do this all afternoon.

Ms. FARRELL. Hi, my name is Caroline Farrell, and I am a second year—almost a second-year law student at the University of Maryland.

Before coming to law school, I did my M.Ph. at G.W. During grad school, I was a spinning instructor, and that helped me pay the bills. I continue to teach spinning, and I teach at a couple of health clubs that offer children's or teen's spin. I know several fitness equipment lines also have special equipment for children.

Obviously, not everyone is able to afford a gym membership, but I am sure that there are ways to subsidize those programs individually or perhaps other similar programs through the community.

Senator DODD. That is good. Great, great. One over here. Why don't you just use the microphone at the table? Go ahead. Right here.

Ms. QUINN. OK. I am Abigail Quinn from Annandale, VA. I am at the University of Virginia doing elementary education, so this is all very interesting.

I have been a camp counselor before, and we had a fruit and vegetable policy at each meal. We actually had a parent tell us that their kid did not eat fruits or vegetables. That was kind of awkward for us.

The other point that I wanted to make is, I am interning this summer with National Wildlife Federation. We have a huge campaign trying to reconnect kids to nature, and obviously, getting kids outside, getting them active is all part of this. We have talked a lot about schools today. I know that recently in my research I have been looking at some studies that have suggested that kids are actually gaining weight over the summer because they are so inactive over the summer.

While schools have a huge role to play, and obviously, as someone who wants to be in education, I think that is crucial. You really need to look at some of these other aspects, too.

Senator DODD. That is great. Yes, I will take one back here. Go ahead.

AUDIENCE MEMBER. First, I would like to say I am not from Connecticut. If I was, I would give you my vote, don't worry.

Senator DODD. Ah, smart guy. You take as long as you would like.

[Laughter.]

AUDIENCE MEMBER. Well, Jenelle, I am sorry. I know you said you were going to tackle me, but I had to ask this.

You were talking earlier about how seeing the marketing of body types and things like that increased anorexia amongst young people. Well, today, we have a lot of things that are beginning like plus-size modeling and all the commercials that you see all the time with, oh, lose weight fast, Slim Fast. You know, you can take these pills, and you will lose weight in 6 months or whatever it is.

I am just wondering what type of psychological affects do you think that has on the obesity of children? Do you suppose that they feel that this is becoming a societal norm because they see it now in the plus-size modeling, or in the commercials, you see people saying that you can lose this weight fast? Maybe they are saying, "Well, I can eat this and I can do this, and then I take my Slim

Fast and then I will lose that weight eventually” or something like that?

I was just wondering, as a question to any of you guys, what type of effects do you think that has?

Senator DODD. Is there an effect? Dr. Grey has done a lot of work in this area.

Ms. GREY. This gets back to the whole issue of social marketing. The sense of normality about obesity is not from plus-size models. I mean, the reality, the role model for kids today are all these stick-thin, size 0 people. Plus-size models are for the middle-aged women who are the norm, wearing plus sizes.

To be honest, in our work, I don't think most kids think about Slim Fast. I don't think they respond to those marketing approaches at all. Their parents might, but their children don't. The sense of being normal being overweight is if you are in a population like the inner city where I work, where 50 percent of the kids in high school are obese or overweight, that is normal.

Where I was in high school, there were 10 kids who were overweight out of a class of 650. Those who were overweight felt—they were teased. They were mocked. The physical activity was a problem because they were always chosen last, and they don't feel good about their ability to participate.

These kids are all the same. While they still get teased and they still get mocked, they can look across a room and see 50 percent of their classmates weigh 180 to 300 pounds. It is a very different mindset than what we think of as adults around this problem.

Dr. KAUFMAN. Can I just add something? What really works best, I think, is to talk about behaviors rather than the outcome of weight. And that we are really—and if you are normative to the whole class, so everybody is learning, too. Even if you are the low-weight kid, soda isn't good for you.

The most favorite food now unified, when we started doing our work in Los Angeles, was Flamin' Hot Cheetos. I mean, a couple bags of Flamin' Hot Cheetos for lunch aren't good for anybody. We are really trying to promote healthy behaviors on both the intake side and the energy expenditure side.

Senator DODD. That is very, very good.

One right here, yes.

Mr. SHEVARRO. I am trying to get rid of this, honestly.

Senator DODD. There you go.

Mr. SHEVARRO. How are you doing? I am Keith Shevarro. I am from New York. I am also a second-year law student at the University of Maryland, and I was a physician before I went to law school.

The question I have is do you see the rise in obesity correlating with the fall of the family? The divorce rate being so high, 50, 60 percent. People working two jobs. Single moms, single dads trying to do the best that they can, but can't really spend as much quality time with their child that they would like to. Have we seen in the numbers a correlation with the decline of the family, an increase of obesity?

Senator DODD. Anyone want to tackle that?

Dr. KAUFMAN. Well, I mean, temporally probably some correlation. Exactly looking at is it greater in single parent families, and there are a lot of correlates, depending on what location you have

done, there is a lot of data. It is just association. It is not really cause and effect.

Senator DODD. Yes. Anyone disagree with that?

Ms. GREY. One of the things that we do know is that families who sit down to a meal together are more likely to eat a more balanced meal. Notice I didn't say "healthier." At least a more balanced meal.

If you look at the lives of many of these families, single parent or even dual parent, many of these families are working two and three hourly wage jobs just to be able to have a roof over their heads and pay the heating bills and those sorts of things. The stories we hear from these families about what we think of as a meal and what they think of as a meal is somebody puts something on the stove, and it is like the revolving door—in the kitchen, wolf it down, and back out again.

Again, this is so tied to the economic reality in these poor families that I don't think it is just a family issue, it is about what are the structures in families, what are the structures in homes and communities that allow for these kinds of healthier behaviors?

Senator DODD. And the economics. Margaret Warren, who teaches at Harvard Law School, has done a lot of studies on just what is happening to middle-income families, the economic pressures. Close to 20 million Americans, heads of household in our country, spend half their disposable income on housing alone. That is leaving the rest of it to do everything else.

When you start talking about all the other obligations, financial, again, it is cheap food, I suspect. And not a question of cheap, but the food that is less healthy certainly is going to fall into that category. It is not just shopping for the best price. It is also recognizing that, as we have learned painfully, less healthy food is, in many cases, less costly.

I will take one more. We will take one right here. Yes?

AUDIENCE MEMBER. Hi. I am [Off Mike] from Great Falls, VA. I go to Thomas Jefferson High School.

I just wanted to reiterate the point about portions of meals because that is really important. Even if it is a healthy mix of foods, if you are eating a ton of it, it doesn't matter. You are getting too many calories, too many carbohydrates.

A lot of restaurants are really bad at that. You order a meal, and you end up with this huge plate piled with food. A lot of people feel obliged to finish off the plate. So portions are really important.

Senator DODD. Yes, just in terms of size of the plates that you buy for meals, your tendency, if you buy these—a lot of times they market these large plates, and putting a small amount of food on a large plate looks like you are getting very little. Just the size of the plate in proportion to the food that is on it can have an effect.

I literally could do this the rest of the day. I can't do this to our witnesses. I have drawn them here for all afternoon. As I said, in 27 years in the Senate, I have never asked the audience to participate, but I just couldn't resist, looking at so many young people who are here, and you have been terrific. Give yourselves a round of applause.

[Applause.]

I find it rather encouraging in a sense that so many of you here have so many good ideas on how to address this. You can all call your parents tonight. You will be on C-Span.

I thank our witnesses immensely. We will have some additional questions. I am going to leave the record open because other members, I think, will have some questions for you such as these detailed questions I was asking you, Dr. Kaufman, and I suspect we will have some more for you, Dr. Grey, as well.

Just getting the data and the correlations between some of these questions here will be very helpful to us as we go forward.

I would be remiss as well—where did she go? She left. Oh, Eva. A former staff member of mine was here this week, and one of the best children's advocates in Connecticut, Eva Bannell. Eva went someplace. I don't know where she went, but I was going to introduce her.

Anyway, I thank Tom Harkin. I thank Lisa Murkowski, Senator Murkowski, and our witnesses as well. I appreciate all of you very much. This committee will meet again next week for the second panel on this issue.

I thank all of you. The committee is adjourned.

[Whereupon, at 4:31 p.m., the hearing was adjourned.]

